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BUSINESS HISTORY



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BUSINESS HISTORY REVIEW

**COVER: Logging in the
White Pine Forests
of Michigan.**

The first cutting of the great forests of the Midwest and Northwest was a conspicuous and typical part of the nineteenth-century American scene — the embodiment of adventure, enterprise, physical achievement, individualism, and a kind of prideful exploitation of resources that seemed fabulously endless.

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The Growth of the Firm

A Case Study: The Hercules Powder Company

Growth is governed by a creative and dynamic interaction between a firm's productive resources and its market opportunities. Available resources limit expansion; unused resources (including technological and entrepreneurial) stimulate and largely determine the direction of expansion. While product demand may exert a predominant short-term influence, over the long term any distinction between "supply" and "demand" determinants of growth becomes arbitrary.

by Edith T. Penrose

LECTURER AND RESEARCH ASSOCIATE
AT THE JOHNS HOPKINS UNIVERSITY

The following analysis of the growth of the Hercules Powder Company was originally intended for inclusion in my *Theory of the Growth of the Firm*,¹ but was omitted in order to keep down the size of the book. The Hercules case was designed to illustrate the argument of that study; the interpretation of im-

¹ Edith T. Penrose, *The Theory of the Growth of the Firm* (New York and Oxford, 1959).

portant factors in the growth of Hercules is shaped by the case histories of other firms studied. Consequently I shall begin with a brief summary of some of the relevant conclusions presented in my larger work. In doing this I necessarily risk appearing either dogmatic, since oversimplification and absence of supporting argument are unavoidable, or trite, since demonstration of the theoretical and empirical significance of the conclusions is impracticable here.²

A firm is both an administrative organization and a pool of productive resources. In planning expansion it considers two groups of resources; its own previously acquired or "inherited" resources, and those it must obtain from the market in order to carry out its program. All expansion must draw on some services of the firm's existing management and consequently the services available from such management set a fundamental limit to the amount of expansion that can be either planned or executed even if all other resources are obtainable in the market. This is as true for expansion through acquisition as it is for internal expansion, although acquisition permits a faster rate of growth and often facilitates diversification. A firm is not confined to "given" products, but the kind of activity it moves into is usually related in some way to its existing resources, for there is a close relationship between the various kinds of resources with which a firm works and the development of the ideas, experience, and knowledge of its managers and entrepreneurs. Furthermore, changing experience and knowledge of management affect not only the productive services available from resources, but also the "demand" which the firm considers relevant for its activities.

At all times there exist, within every firm, pools of unused productive services and these, together with the changing knowledge of management, create a productive opportunity which is unique for each firm. Unused productive services are, for the enterprising firm, at the same time a challenge to innovate, an incentive to expand, and a source of competitive advantage. It is largely because such unused services are related to existing resources and partly

² NOTE ON SOURCES: This study of the Hercules Powder Company was made possible by a Fellowship granted me by the Foundation for Economic Education in cooperation with the company, which enabled me to spend six weeks studying the company from within in the summer of 1954 with the full cooperation of all of its personnel. The paper was completed in 1956; when I decided to publish it now I inquired of the company about subsequent developments, receiving the following reply: "More recent events, while of great interest within Hercules (and we believe in the industry), are largely a continuation of the types of growth you have shown to be typical and more or less to be expected, except at possibly a somewhat faster rate. Actually, the manuscript can never be quite up to date in an expanding company, nor for your purpose does this seem to be necessary." I agree with the last statement and for this reason have made no attempt to bring it to the present.

because of the pressures of competition that firms tend to specialize in broad technological or marketing areas, which I have called technological or market "bases." In a sense, the final products being produced by a firm at any given time merely represent one of several ways in which the firm could be using its resources, an incident in the development of its basic potentialities. Over the years the products change, and there are numerous firms today that produce few or none of the products on which their early reputation and success were based. Their basic strength has been developed above or below the end-product level as it were — in technology of specialized kinds and in market positions. Within the limits set by the rate at which the administrative structure of the firm can be adapted and adjusted to larger and larger scales of operation, there is nothing inherent in the nature of the firm or of its economic function to prevent the indefinite expansion of its activities as time passes.

Entrepreneurial services are as much productive services as are the services of management, labor, or even machines. Entrepreneurial incompetence, or general cautiousness, including a conservative attitude toward financing, should be looked on not as a failure to "maximize" profits, whatever that may mean, but as a limitation on the supply of productive services to the firm.

In the explanation of the course of expansion of a particular firm and of the limits on its rate of expansion, it is illuminating to put the chief emphasis on the firm's "inherited" resources and productive services, including its accumulated experience and knowledge, for a firm's productive opportunity is shaped and limited by its ability to use what it already has. Not only is the actual expansion of a firm related to its resources, experience, and knowledge, but also, and most important, the kinds of opportunity it investigates when it considers expansion. Moreover, once a firm has made its choice and has embarked on an expansion program, its expectations may not be confirmed by events. The reactions of the firm to disappointment — the alteration it makes in its plans and activities and the way in which it adapts (or fails to adapt) — are again to be explained with reference to its resources.

These relationships are portrayed in the chronology of the changing productive opportunity of the Hercules Powder Company. The history of this company illustrates the nature and significance of the areas of specialization of a firm — its technological and market bases — as well as some of the difficulties encountered when an attempt is

made to move to new bases markedly different from the old. The outlines of the company's diversification are presented in Chart I. The following story elaborates, explains, and discusses the significance of the movements implied therein.

In 1912 a large United States firm, E. I. Dupont de Nemours, then looked upon as dangerously close to monopoly in the explosives business, was broken into three parts by action of the federal courts as a result of an antitrust suit initiated by the federal government in 1907. One of the two "new" firms thus created was the Hercules Powder Company. At the time of its formal organization in 1913 Hercules had a thousand employees and nine plants; it produced explosives only: black powder and dynamites.

During the next forty-odd years this amputated piece of DuPont, like a cutting from a plant, continued to grow.³ It, like DuPont, has over the years branched out in numerous directions in response to external opportunities and internal developments. The parent and its involuntary offspring have not grown in the same directions, and in only a few fields are they in direct competition with each other. Hercules is not only completely independent of DuPont, but has acquired its own personality and its own position in the industrial world quite unrelated to DuPont's position. By 1956 it had 11,365 employees, 22 domestic plants, and total assets of nearly \$170 million, making it the 165th largest industrial company in the United States measured by total assets.⁴

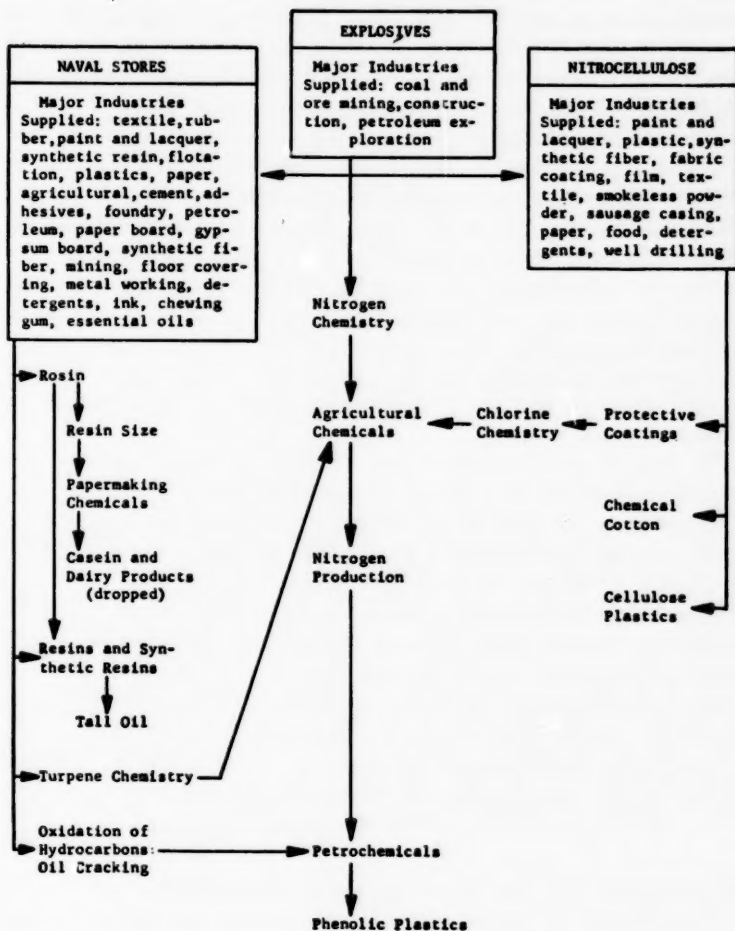
The company's rate of growth has been modest (something over 5 per cent per year in terms of fixed assets) but fairly steady. Its financing has been conservative, virtually all of its growth having been financed with internally generated funds. It has engaged in little acquisition, only eight small companies with total assets at the time of acquisition of less than 10 per cent of the company's present net worth having been acquired in its entire lifetime. Its "entrepreneurship" has been what I have called "product-minded," reasonably venturesome and imaginative, but concentrating on "workmanship" and product development rather than on expansion for its own sake or for quick profits.

³ The story of Hercules also illustrates the point that the splitting up of large companies will often not have an adverse effect on efficiency if the advantages they have in expansion are economies of growth and not economies of size. For a discussion of these two types of economies and their significance see Penrose, *The Theory of the Growth of the Firm*, Chap. VI.

⁴ This rank is the one given in the *Fortune Directory* of the 500 largest United States industrial corporations. Supplement to *Fortune* (July, 1957). In addition to the above, Hercules had three plants in wholly owned subsidiaries abroad and employed some 6,000 workers in government owned Hercules-operated ordnance facilities.

CHART I

DIRECTION OF EXPANSION



DEVELOPMENT OF THE TECHNOLOGICAL AREAS OF SPECIALIZATION

The original technological base of the Hercules firm was explosives and for the first few years of its existence it was kept busy with the expansion of this field. Two new plants were acquired and improvements were made in existing plants and in the processes of production of dynamite, smokeless powder, and cordite. One of the innovations — the production of acetone (a solvent used in the manufacture of cordite) and other products from the giant kelp found on the Pacific Coast — involved an extension of the firm's knowledge and experience in a type of organic chemistry which was to become significant in its subsequent diversification.

The manufacture of explosives is still of considerable importance for Hercules (accounting for 18 per cent of sales in 1951) and at times has been its most profitable operation, providing funds for the extension of activities in other directions. Substantial innovations have been made in the field of semigelatin explosives, smokeless powder, packaging of explosives, and explosive supplies. Some diversification into the production of chemicals used in explosives production, notably nitric acid, anhydrous ammonia, and other nitrogenous compounds, has been made, and this development has contributed in recent years to Hercules' position in the agricultural chemicals industry.

In spite of the innovations and enlarged activity, however, the explosives business was not one to permit extensive growth and development of the firm. In particular, it provided little opportunity for the use of the experience in the field of organic chemistry that had been developed by Hercules men in the course of the firm's operations. Furthermore, at the end of the First World War the plant, organization, and accumulated funds of the firm were much greater than could be used in explosives in view of the drastic decline in demand after the war. In the immediate postwar period numerous opportunities for profitable investment were open on all sides in the expanding, changing economy. But which of them would furnish opportunities for the growth of a still relatively small and specialized explosives company?

Nitrocellulose and New Areas of Specialization

Nitrocellulose is one of the most important basic raw materials in the production of explosives. In 1915 Hercules had bought the Union Powder Company, which had a plant for the nitration of cotton linters (the "fuzz" on cotton seeds and a by-product of cot-

ton production) into nitrocellulose, then used primarily for smokeless powder, but also for celluloid and collodion ("new skin"). Already by 1917 the company was experimenting with the production of nitrocellulose for industries other than explosives, for if it could produce a suitable soluble nitrocellulose it felt sure of a large market supplying the needs of the lacquer, film, and protective coatings industries generally. It succeeded in developing an appropriate product, and by 1923 was firmly established in the field. Between 1918 and 1944 Hercules' production of soluble nitrocellulose increased from 100,000 pounds annually to 28,000,000 pounds and the price was lowered from 75 to 33 cents a pound.

So efficient was Hercules' production and quality control and so well-developed its control of explosive hazards in the manufacture of the basic product and also in its use by customers, that a number of companies withdrew from the field. Some of these were integrated companies, producing for their own use, who found it more economical to buy their requirements from Hercules; others simply withdrew in the face of Hercules' competition. The automobile industry turned out to be the biggest consumer, using nitrocellulose in its lacquers. In consequence, Hercules was in a position to profit from the rapid growth of this then relatively new industry. Nevertheless, here, as in other fields, continual attention to the development of new products and new methods to meet or surpass competitive developments has been required. For example, the advent of baked enamel for automobile finishes, which reduced the labor time required for finishing, was a serious threat to lacquer; and Hercules developed new lacquers which could be sprayed on hot and meet the new competition in cost.

Successful development of nitrocellulose for nonexplosive uses provided for Hercules an extensive technological base as well as an important market area of specialization. The development of the technological base led to expansion in still other markets; the development of the market base furthered expansion into still other branches of chemistry. Broadly speaking, the technological base was that of cellulose chemistry; the market base, supplier to the protective coatings industry.

Cellulose Chemistry

Hercules' base in cellulose chemistry enabled it to take advantage of the growing markets in the artificial fiber and plastics industries. Cellulose acetate, an important raw material in the rayon industry and used for the production of some grades of plastics, soon

became, for the firm's Cellulose Products Department, an important product in quantity, though disappointing in profitability.

The cellulose acetate market is highly competitive, and, in this as well as in most of its other products, one of the firm's biggest competitive problems arises from the ever-present possibility that its customers will integrate vertically and start producing their own requirements. In the long run Hercules can prevent this only by producing a high-quality product and selling it at a price that makes integration unprofitable for customers. Hence a relatively low sales margin is earned and continual research and experimentation are carried on. (Hercules has even experimented with the spinning of fibers in order to acquire knowledge which might be of use to its customers. As we shall see, "technical service" is one of the "utilities" Hercules sells with all of its products in order to maintain its market position.)

With the development of synthetic rubber during the Second World War came a new petrochemical base for cheap plastics (polystyrene) which soon began to displace cellulose acetate in molding powders, the basic material from which molded plastics can be made. Petrochemicals, however, involved a branch of chemistry in which Hercules had only limited experience at the time. Many of the companies producing the new plastic material had developed extensive experience during the war which gave them a new "base" in petrochemicals. Hercules' wartime activities were in very different areas. The firm's lack of an adequate technological base was sufficient to prevent it from taking up the production of polystyrene and similar petrochemical products. Consequently the company attempted to reach new markets with its own cellulose acetate by taking up the production of molding powders.

The extensive knowledge of cellulose chemistry possessed by Hercules has provided a continuous inducement to the firm to search for new ways of using it. For example, during the war Hercules, in an attempt to replace a lubricant no longer available, took up the production of an extraordinary versatile cellulose gum—sodium carboxymethyl-cellulose (CMC). The firm was much impressed with the properties of this chemical composition, but was not sure to what use American industry could put it. Perhaps CMC could be used in the sizing of textiles (Hercules already produced some types of fabric coating). No one knew; nevertheless, advertisements were placed in trade papers describing the qualities of the product and inquiring "What do you see in CMC?"

The product caught on. Here, surely, is an almost perfect ex-

ample of the creation of consumer demand as a consequence of entrepreneurial desire to find a use for available productive resources. The biggest uses for CMC, initially, turned out to be as a stabilizer in foods, ice cream, lotions, drugs, and cosmetics. CMC also proved to have an industrial application in oil-well drilling mud — an outlet the firm had not anticipated. It is now also used in textile sizes, finishes, and printing pastes; in ointment bases, in thickening rubber latex; in can-sealing compounds and grease-proof paper coatings; in tooth paste; in emulsion paints and lacquers; in leather pasting; in ceramic glazes; and as a binder for crayons and lead pencils. Innovations in use and in the product continue. In 1955 a new type of CMC was introduced which was expected still further to expand the market and the variety of uses.

There are other cellulose products and specialties that have been developed by Hercules which we shall not take the time to discuss here, but our account cannot leave out the firm's early diversification into the production of its own requirements for chemical cotton, the raw material for cellulose products of all kinds. In 1926 Hercules purchased the Virginia Cellulose Company at Hopewell, Virginia, in order to produce one of its own basic raw materials and, in particular, to control its quality. The purchasing of cotton linters — of which the second cut is used for chemical cotton — is a highly specialized business. Hercules buys around 40 per cent of that part of the nation's production of cotton linters destined for chemical uses, and supplies not only all of its own requirements but sells outside as well, for production must be on a large scale to be efficient. When Hercules went into production of chemical cotton its chief use was in paper making and in nitrocellulose products. The expanding rayon industry provided a new and growing outlet, and later another important use was found in the manufacture of high tenacity viscose rayon for tire cord.

Developing a New Base — Naval Stores

Broadly speaking, as can be seen in Chart I, the operations of the Hercules Powder Company, apart from explosives, can be divided into two large chemical branches, with a third becoming clearly evident in recent years. They all overlap in the markets they serve, and each leads in its later stages into new areas of chemistry which may well provide new technological bases for further diversification. The movement into new aspects of cellulose chemistry, just described, was an obvious entrepreneurial response to the postwar decline of nitrocellulose markets in the explosives field.

The subsequent branching out of the company was the logical (though not inevitable) effect of its continually increasing knowledge of cellulose chemistry as well as of its developing position in its various market areas. Later we shall discuss the interaction between the technological and market bases of the firm; for the present we are concerned primarily with the technological aspects of its diversification, although clearly technological developments are of use only if profitable markets can be found.

Important as the opportunities were in the field of cellulose chemistry, however, they did not appear to the firm to promise sufficient scope for the entrepreneurial, managerial, labor, and technical services available to it at the end of the First World War. In 1919 the company had created an industrial research department for the express purpose of investigating products Hercules could profitably produce. This department decided that the firm could go into the production of wood naval stores (rosin, turpentine, and pine oil) obtained from the stumps of the long-leaf southern pine — like linters, a waste product of another industry.

Naval stores production was not as obvious an opportunity for Hercules as was cellulose chemistry, but, again it was expected to provide openings for the use of the existing resources of the firm. Hercules believed that it could use its knowledge of organic chemistry to produce a purified wood rosin good enough to compete with the gum rosin when gum prices were high; incidentally, the naval stores operation would also provide a use for dynamite in the blasting out of the stumps. Extensive lumbering operations during the First World War had resulted in a large-scale cutting of suitable trees, and it was widely believed that the consequent reduction in the supply of gum rosin would lead to an extended period of high prices which would make profitable the production of wood rosin.

Consequently, in 1920 Hercules built a plant in Mississippi for the steam distillation of rosin from pine stumps; it also bought another company owning a deteriorated plant but with a large supply of stumps. The mining of the pine stumps produced three joint products: rosin, turpentine, and pine oil, the main product for Hercules being rosin. Hercules did succeed in developing a purified wood rosin suitable as a substitute for gum in many uses, and it improved the productivity of the old plant it had bought, increasing rosin output by one third in three years and liquids production by 100 per cent. But the firm's original expectations of demand for wood naval stores turned out to have been too optimistic. Although wartime lumbering did sharply deplete the

supply of standing pine available for the production of gum naval stores, the second growth of trees came in, output rose, and gum prices fell drastically. Wood rosin could not compete with gum when gum prices were low, and the naval stores business of Hercules went into the red for many years. Notwithstanding its heavy investment in rosin chemistry research, Hercules came close to withdrawing from the business.

Rosin and Terpene Chemistry

But research paid off; unable to sell rosin in its existing forms in competition with gum, Hercules learned how to modify the product by hydrogenation, disproportionation, and polymerization and thus to convert it into various kinds of rosins for which many new uses could be found. Rosin is essentially abietic acid; when esterified with various polyols it makes hard resins valuable in the manufacture of paints and varnishes, and Hercules already had a position in the protective coatings field. Customers could be found for hard resins and rosin esters, and these, together with a variety of specialty resins as well as straight esters, were developed into an important outlet for rosin production. The naval stores operation became the equal of cellulose chemistry as a central technological base of the firm and in 1928 was organized as a separate department. In 1936 still another department was created, charged with the task of developing new uses and new outlets for resin-based products. As we shall see, the knowledge generated in this department, together with its market opportunities, soon led it outside the field of rosin chemistry and into new areas.

Further description of the range of products produced by Hercules and based in rosin chemistry would involve us in too much detail (and, incidentally, in too much chemistry), although we shall return to some of the more interesting developments in our discussion of the interaction between the technological and market bases of the firm. It is fairly easy for small firms and "in-and-out" producers to take up the production of resins; profit margins are consequently low, and the profitability of the industry for Hercules depends on large volume. To sustain its position, the firm has to rely on technological knowledge, low production costs, service facilities to customers, and continual improvements in production, in quality, and in variety of its products. Hardly a year passes without the introduction of several new products or improved varieties of old products, developed under the stimulus of actual or potential competition, the pressures of technical men with ideas to

put across, and the hope of profit from innovations in which the firm has special advantages because of its accumulated experience.

But rosin is only one of the three joint products of the pine stump, and markets had to be found both for turpentine and for pine oil, a relatively new industrial product in the 1920's, derived only from the wood operation. Fractional distillation methods were perfected which permitted the production of higher grades of turpentine and pine oil. In 1929 pine oil outlets were not developing fast enough to keep pace with production, and Hercules intensified its research into pine oil chemistry looking for derivative products. Thanite was developed, a terpene thiocynoacetate providing a toxicant for insecticides, and later toxaphene, a chlorinated camphene. These products put Hercules firmly in the field of agricultural insecticides which in turn stimulated research into agricultural chemicals generally. At times the demand for pinene has exceeded the company's output and it has had to buy crude products from pulp mills for refining. As was the case in cellulose chemistry, a large variety of chemical products and processes has been developed in the field of terpene chemistry. One of the latest processes bids fair to give Hercules a more established base in petrochemicals, a field which, as was noted above, had up to recently been outside Hercules' major fields of specialization, thereby handicapping the firm in its ability to meet competitive developments.

Petrochemicals — A New Base

In several of its manufacturing processes Hercules has always been involved in petrochemical operations. Although the manufacture of explosives is not in itself a chemical process, the production of the essential ammonia is. Nitric acid used for making explosives is obtained from ammonia, and the process used by Hercules to produce ammonia involves the cracking of natural gas. Furthermore, some of the processes in the rosin and terpene operations of its naval stores activities are similar in nature to the cracking of oil. Indeed, some of them can be and are used in oil cracking. Finally, in experimenting with the chemistry of terpenes and with the oxidation of the hydrocarbon by-products of naval stores, Hercules developed a reaction that utilized benzol and propylene and that resulted in a new process for making phenol. These developments opened up two new branches of chemistry for the firm: air oxidation processes and petrochemicals; new plants have been built for operation in both areas. The phenol plant, established near an oil refinery, uses a by-product of the refinery. Among the

important uses of phenol is the manufacture of synthetic resins for phenolic plastics; it is also used in the manufacture of varnishes, enamels, herbicides, and pharmaceuticals. Lack of any raw material "base" in petrochemicals had prevented Hercules from participating fully in the rising markets for rubber-base paints and for phenolic plastics. One of the primary hopes of management in establishing the phenol plant was to open the way for the acquisition of further knowledge in order to provide a base for expansion in this wide field of chemistry, as well as to put the company in a position to keep up with competitive developments arising in petrochemistry and affecting the market for some of its major products.

Finally, Hercules in 1955 took up the production of polyethylene for plastics. The technology was based on the work of German scientists who had discovered in experimenting with new types of catalysts that ethylene could be polymerized at low pressures to give a new type of high molecular weight polyethylene. This not only further extends Hercules' activities in plastics, but also takes it further into catalytic chemistry, which may, in time, lead into still further technological areas.

INTERACTION BETWEEN TECHNOLOGICAL AND MARKET BASES

Hercules is a producer of chemical products for other industries; it does not manufacture final products for the nonindustrial consumer. To obtain knowledge of the "demand" for its products, one of its principal tasks is to watch industrial developments in all relevant sectors of the economy in order to discover where its products might be made to supply the requirements of industrial consumers as well as or better than existing products. It is a conscious policy of the firm systematically to review its resources with an eye on external developments, asking the question, "What have we got to offer?"

Because of the nature of its market, Hercules stresses "technical service" to customers; salesmen are for the most part technically trained men. In selling their products the salesmen are expected to take an active interest in the production and market problems of their customers. This permits them to acquire an intimate knowledge of the customers' businesses and not only to demonstrate the uses of their own products and to suggest to customers new ways of doing things, but also to adapt their products to customers' requirements and learn what kinds of new products can be used. It is standard practice in the development of new products to get

customers to try them out on a "pilot plant" basis and thus to assist Hercules in the necessary research and experimentation.

Obviously, it is in those areas where Hercules' personnel have the greatest experience and the most extensive relationships with customers that the opportunities for the sale of existing products and for the promotion of new products will be widest. Hence, in spite of the enormous variety of possible end uses of Hercules' chemical products, the firm nevertheless remains in a relatively few broad "areas of specialization." Approximately 40 per cent of the total value of sales are accounted for by three industry groups: protective coatings, paper, and mining and quarrying, and an additional 40 per cent by six others: synthetic fibers, plastics, agricultural chemicals, petroleum, rubber, and identifiable military uses (the last including fees obtained from the operation of government owned ordnance plants).

The interaction between the market opportunities of the firm and the productive services available from its own resources can be seen in the development of almost any field we examine. A few examples will illustrate.

Paper-making Chemicals

The biggest customer of rosin is the paper-making industry which uses rosin largely in the form of rosin size, a sodium soap of rosin. As a result of the close association with the paper industry consequent upon its entry into naval stores production, Hercules in 1931 acquired the Paper Makers Chemical Corporation, a diversified, loosely organized company producing a variety of industrial chemicals. On acquiring the corporation, Hercules reorganized its productive activities, consolidating production in the more efficient plants and getting rid of others; it eliminated alum production and the jobbing activities of the old company. Eventually a separate department, called the Paper Makers Chemical Department, was created to take over the remaining collection of activities.

Although the basic reason for the acquisition of the old PMC was the outlet it provided for rosin and the possibilities for growth that Hercules saw in the rosin-size business, the activities of the new department in Hercules rapidly extended not only to many other chemicals useful in the paper-making industry but also to other industries using the same or similar chemicals. Thus, with the advent of synthetic rubber production, Hercules looked into the possibilities of using rosin soap as an emulsifier in the production

of synthetic rubber, and now sells a very large proportion of its rosin soap to the synthetic rubber industry.

This in turn stimulated interest in the general field of synthetic rubber production, now one of the more important areas of Hercules' research. Hercules' interest in the paper industry, arising from rosin sizes, has in recent years been substantially reinforced by the growing uses of chemical cotton in paper making. Much research has gone into the characteristics imparted to paper when chemical cotton is substituted for other raw materials. As a result, Hercules has been able to establish its raw material for many uses in paper making.

Among the activities of the old Paper Makers Chemical Corporation when it was acquired by Hercules was the production and sale of casein, a milk product used in the paper industry. Hercules retained this business for some twenty years and attempted to develop the field. For a while the operation was profitable, but owing to rising support prices of dairy products, imported casein became so much cheaper than the domestic product that it was no longer profitable to produce it. On the other hand, since the firm had an organization and a sales staff that it wanted to use, attempts were made to develop a chemical to displace casein in paper manufacturing. These attempts continue, but the casein operation itself was finally discontinued in 1953, after many years of unsatisfactory performance.

Protective Coatings

Protective coatings is a broad term including paints, lacquers, and other forms of providing a "coating" to protect wood, metal, cement, textiles, and other materials. Hercules' market position in this field goes back to its early production of soluble nitrocellulose for the lacquer industry; it was subsequently extended as the firm developed rosin products, also valuable in the paint and lacquer industry. The interest in the general market area of protective coatings imparted by these important uses of its basic raw materials led to developments within the firm which took it into the production of other products from other raw materials, but products that served the same types of customers and involved similar types of technological processes.

One of the early successful innovations in the field was the development of Parlon, a chlorinated rubber, valuable as an ingredient in paints for chemical plants and in other places where resistance to alkalis and acids is important. This product is pro-

duced in the large cellulose products plant of Hercules but is not related to cellulose through either raw materials or production processes. It was introduced to broaden the firm's base in the market for protective coatings. During the Second World War, rubber was in short supply and the firm, in order to use its plants, produced Clorafin, a chlorinated paraffin used as a plasticizer in synthetic rosins and as an ingredient in compounds for imparting flame, water, and mildew resistance to textile materials. After the war, the production of this product was continued and the production of Parlon resumed.

Development of the general field of protective coatings and of plasticizers also led the Synthetics Department beyond its original specialty of finding outlets for rosin in various forms, into research with chemical materials, unrelated to rosin, for the manufacture of new ingredients for protective coatings, new types of plasticizers, polyols used in rosins, and raw materials for synthetic fibers. By 1951, substantially more than 50 per cent of the sales of this department were of nonrosin-based products.

Agricultural Chemicals

All three of the major technological fields of Hercules have combined to give it an interest in the field of agricultural chemicals. The fact that nitrogen chemistry, in particular ammonia, is important in the manufacture of explosives and also one of the major bases of commercial fertilizers early gave Hercules a connection with agriculture. With the progressive development of chlorine and terpene chemistry and the introduction of the new insecticides, Thanite and toxaphene, mentioned above, this interest broadened. Although the original stimulus to the entry of Hercules into agricultural chemicals stemmed directly from the types of resources it possessed, once the firm had entered the field in a major way and created a technical and sales force to serve this market, the market possibilities became the primary stimulus. Extensive research activities were undertaken to develop further the firm's position in the field. A new laboratory for research into agricultural chemicals was opened in 1952, and in 1954 Hercules, together with the Alabama By-Products Corporation, set up the Ketona Chemical Corporation to produce anhydrous ammonia using by-product coke-oven gas as a raw material, the first ammonia plant to use this process in the United States. The plant produces for both agricultural and industrial nitrogen users in southeast United States.

Plastics

Celluloid, which is virtually nothing but nitrocellulose and camphor, was the forerunner of modern plastic materials (and, incidentally, is still important in many uses). This product was produced by Hercules from the very beginning; the development of cellulose acetate further committed the firm to the plastics industry. The various kinds of chemical plastics, which in a broad sense can often be regarded as the same "product," are made by substantially different chemical processes. Hence, the widening of Hercules' position in the plastics field stems from different types of chemical technology, the development of which has itself been stimulated by the firm's attempt to maintain and improve its position as a supplier to manufacturers of plastic products. Thus much research effort has been directed specifically toward the development of plastics, not only based on the firm's primary raw materials and on chemical processes used in its several other operations, but also going far afield into new processes and new raw materials. Hercules' research is broad and many different areas of activity are being explored, but which of the possible products are finally selected for "basic" expansion depends on the firm's estimate not only of the new markets they may create for the firm but also of how they fit in and can be developed along with existing resources and market areas. Many of the technological developments discussed above, such as the development of phenolic chemistry, were to a large extent stimulated by a desire to take full advantage of the growing opportunities in plastics.

Oil Additives

The story of Abalyn, tall oil, and Metalyn, is a minor one in the history of Hercules but is interesting from our point of view as an illustration not only of an interaction between technological and market bases, but also of the way in which new raw material sources can be developed in order to maintain an existing market position.

We have noted that rosin is one of the primary raw material bases of the firm. Under the pressure of the 1947 recession, Hercules was eagerly looking for new outlets for rosin. As we have seen, one of the primary measures adopted by the firm lay in the conversion of rosin to other products for which markets could be found. Among these products was Abalyn, a methyl ester of rosin, useful as an oil additive in high pressure greases because of its ability to hold grit and other foreign matter in suspension. The

important competitive substitutes were lard and sperm oil, which were expensive compared to rosin when Abalyn was introduced. These, however, fell in price and Abalyn became relatively expensive. To keep its markets, Hercules decided to buy tall oil, a by-product of paper mills, from which rosin could be obtained more cheaply than from the naval stores operations. This by-product, esterified, yielded a substance which used the same equipment as Abalyn for its production, did the same or better job as an oil additive, and was substantially cheaper. The product, called Metalyn, became an important product of the Synthetics Department, but at the same time lost for the firm an outlet for its own rosin. On the other hand, tall oil became a new and significant raw material for Hercules, and in 1954 the firm announced plans to build a plant for the processing of crude tall oil and the manufacture of rosin and fatty acids from it, thus establishing itself in another new field also based on a by-product of another industry. This development may be of especial importance in the future in view of the fact that the naval stores production is essentially a mining operation (the supply of existing stumps is being steadily depleted and no new stumps are being "produced"). Hence this source of wood rosin will eventually run out and substitutes will be required.

Food Industries

Finally, the latest venture of Hercules again illustrates the constantly changing and cumulative process involved in the interaction between the resources and markets of a firm. In 1956 Hercules acquired the Huron Milling Company, a small firm processing wheat flour to produce amino acids, food supplements, and wheat-based food flavoring, including monosodium glutamate. At first sight this acquisition looked rather far afield, although Hercules did have earlier connections with the food business through its CMC, discussed above, as well as chewing gum (a rosin derivative) and antioxidants for food products. Hence, although food chemistry and food markets had not been of primary concern to the firm, they were not completely alien to its experience. Nevertheless, the primary incentive for this particular acquisition and for the choice of this specific direction of expansion was somewhat different.

It will be recalled that Hercules produces its own chemical cotton from cotton linters. Production is carried on in the Virginia cellulose plant and the scale of activity depends not only on the demand for the product but on the supply of linters, which is a function of the size of the cotton crop. The supply of linters has not

been sufficient in recent years to employ fully the services of the personnel connected with the Virginia cellulose operation, and the firm has been looking for some suitable activity to absorb these "unused services." The Huron Milling Company was on the market. It was a family firm whose owners wanted to get out and retire from business and also to put their assets in a different form. (Estate tax considerations may well have had something to do with their desire to sell.) At the same time, the firm's activities were of such a nature that Hercules saw an opportunity to extend its knowledge in the food field, especially in the chemistry of amino acids, and to use the personnel of the Virginia cellulose plant. The Huron Milling Company was accordingly purchased with an exchange of shares and is now operated as the Huron Milling Division of the Virginia Cellulose Department. Whether a new base will develop for Hercules remains to be seen, but a start has been made which, if it fits in well with the general nature of Hercules' activities, may not only mean new markets for the firm, but new technology as well.

THE CHANGING PRODUCTIVE OPPORTUNITY OF THE FIRM

The diversification of the Hercules Powder Company, while unique in its details, is by no means unique in its general pattern and will be found repeated in greater or less degree in the story of any number of long-established successful firms. The company's history illustrates the impossibility of separating "demand" and "supply" as independent factors explaining the growth and diversification of a firm. The Hercules story illustrates the crucial role of changing knowledge about its own resources in the determination of a firm's course of expansion; at the same time it illustrates the restraining influence of a firm's existing areas of specialization, in particular its technological bases. Whether or not the appearance of new industries, of new "demand," in the economy as a whole will provide profitable opportunities for the expansion of a particular firm depends largely on whether that firm has, or can obtain, an adequate "base" in the relevant field.

Although no single group of industries served by Hercules accounts for more than around 16 per cent of Hercules' sales, two of its primary technological bases, cellulose chemistry and rosin and terpene chemistry, have until recently accounted for over three quarters of its business, with nitrogen chemistry a third important base. Within these bases new products and new markets are continually being created; at the same time petrochemicals have become a

leading activity and the emergence of new bases for future operations can already be discerned. By 1926, a bare thirteen years after the firm's creation, new product lines accounted for 35 per cent of total sales; by 1952, 40 per cent of its sales consisted of products that had originated from the firm's research activities after 1930.

The market-creating activities of Hercules are of two kinds; we have discussed one, its extensive reliance on "technical service" to its customers. The other lies in extensive promotion activities related to its customers' products and only indirectly to its own products. For example, Hercules does not manufacture hot lacquers, but it devotes considerable effort to developing the market for these lacquers; only if the end product is extensively used will the demand for the components made by Hercules be high. The firm even goes as far as to promote the sale of aerosol lacquers (lacquers packaged in aerosol cans under pressure), although it produces neither the lacquers nor the cans.

Because of the nature of its market, Hercules is peculiarly sensitive to business fluctuations. When the demand for final products falls off in the economy, the decline in sales affects the intermediate products and raw materials produced by Hercules in magnified form. The question of the desirability of vertical integration therefore arises, for a producer of intermediate products can usually reduce the sensitivity of its total activities to fluctuations in demand by itself undertaking to produce products destined for the final consumer. This has been a solution adopted by many firms, but it is a solution largely denied Hercules by the nature of its market connections. Forward integration would immediately adversely affect one of the pillars of the sales and market policy of Hercules, for customers would no longer be willing to open their plants, disclose their processes, and discuss their problems with the technical servicemen of Hercules. The technical relationship with customers so carefully cultivated and so important for the creation of new opportunities would be impaired if customers had any reason to fear that Hercules would itself become a competitor.

The Rate of Growth of the Firm

The discussion so far has been concerned exclusively with the direction of expansion. What about the rate of growth of the firm? Hercules has not grown so fast as some other firms in related fields of activity, but it has grown faster than industry as a whole. Can one identify a basic factor limiting the firm's rate of growth? Here,

of course, we can only speculate, draw inferences from the course of events, and attempt to interpret statements made by the officials of the firm.

Practically all of the growth of Hercules has been financed with internally generated funds. There has been some criticism within the firm of its conservative financing, and the allegation is made by many, particularly by junior executives who feel that their opportunities have been unnecessarily limited on this account, that the firm's growth has been restricted by its preference for internal financing and its insistence on a strong "cash position." On the other hand, one of the older executives, long a senior official in the firm, asserted categorically that it was not finance but rather the availability of profitable opportunities for expansion which controlled the firm's rate of expansion. He said that if Hercules found new opportunities for profitable investment exceeding its own financial resources it would borrow the money (or preferably raise it from existing stockholders) to take advantage of them.

The same executive stated that neither was expansion held back by the ability of the firm's personnel. He felt that the war record of the firm showed that if the opportunities were there it could do a great deal more than it was doing. In contrast, another senior executive took a different view: "Give us the men," he said, "and we will do the job."

These appear to be conflicting explanations of the limits on the rate of expansion of the firm. Although it is obvious that an insistence on financing all expansion from retained earnings would limit the firm's growth, it is unsafe to assume that this has provided the effective limit on expansion merely because little outside capital has in fact been raised. On the other hand, it is undoubtedly true that from a purely managerial point of view the administrative organization of Hercules could have been expanded much more rapidly than it was. In other words, it is probable that the managerial services available from the administrative and technical staff of the firm have rarely been fully used. Under these circumstances we must examine the nature of the firm's "entrepreneurship."

Hercules has clearly been imaginative, versatile, and venturesome in the introduction of new products, even at times going into production on a small scale before any market for a particular product was clearly evident; at the same time it has been cautious and conservative in entering new and alien fields of technology. It has been willing to venture extensive funds in speculative research in new fields; it has been unwilling to move into production and invest

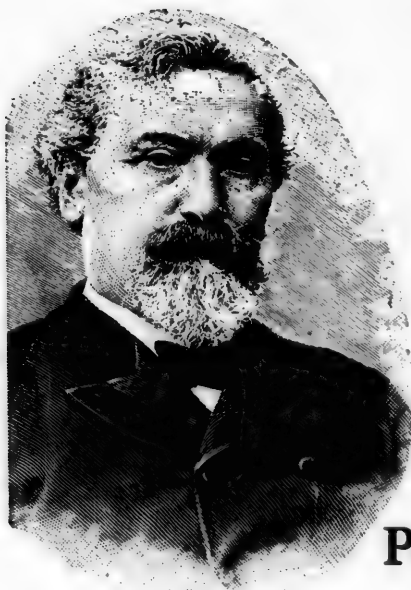
in plant and equipment in new fields before it had established a research base of its own. And it has been conservative in the methods chosen for entering new fields. For example, it was long after petrochemicals had become an important and growing aspect of the field of industrial chemistry that Hercules decided to enter in a significant way, and then it moved cautiously, relying largely on production processes the firm itself had developed. Another firm, technologically less conservative, might have entered much earlier and through extensive acquisition; Hercules has tended to emphasize the importance of establishing a technological position based on some specialty arising from its own experience. On the other hand, once the firm has become "basic" in a field, as some of the officials of the firm like to put it, this conservatism largely disappears and the variety and quantity of product is expanded as rapidly as developing technology and markets will permit.

This means, in effect, that the growth of the firm is fundamentally constrained by the knowledge and experience of its existing personnel. Hercules has apparently been loath to go into new fields of activity except through the relatively slow process of building up its internal technical resources. New people are continually being brought into the firm and trained in the processes and methods of the firm; new ideas are eagerly sought from the outside, particularly from abroad, and incorporated into the firm's research program. But new *bases* are not acquired "ready-made," so to speak, through extensive and rapid absorption of new people in new fields that are not easily integrated with some existing and internally developed unit in the firm.

The profitability of opportunities for expansion is examined not only in the light of the expected market for certain products or types of products, but largely in the light of how Hercules, with its existing resources and types of operation, could take advantage of and develop them. If the growth of the firm has been restrained by a "lack" of profitable opportunities for expansion, this merely reflects the lack of entrepreneurial confidence in the profitability for Hercules of areas of activity with which the officials of the firm are insufficiently familiar. Since a "technological base" consists not of buildings, kettles, and tubes, but of the experience and know-how of personnel, the basic restriction comes down to the services available from existing personnel; the problem of entrepreneurial confidence is fundamentally a problem of building up an experienced managerial and technical team in new fields of activity. Here, again, we can see the nature of the market as a restraining influence

on expansion. To the extent that limited opportunities in existing fields force firms to go into new ones, the rate of growth is retarded by the need for developing new bases and by the difficulties of expanding as a coordinated unit. The speed with which firms *try* to move, however, is to a large extent a question of the nature of their "entrepreneurship."

The above interpretation of the growth of Hercules is based on a study of past history and of recent attitudes. It is clear that entrepreneurial attitudes, the "firm's conception of itself," have had a pervasive influence not only on its direction of growth but also on the method of growth and on the rate of growth. Whether these attitudes will persist depends on the way in which the entrepreneurial resources of the firm change as time goes on. Hercules takes pride in the long service of its people and in the fact that its board of directors is not only a "working board" but is also drawn from men who have spent a great part of their working life within the firm. The first president of the firm served in that capacity for 26 years, was chairman of the finance committee until 1952, and only retired from the board in 1956; of the 15 members of the board in 1950 all but 2 had been with the firm at least 25 years. As the men who built up the firm and carried it through its first few decades retire, it remains to be seen whether the growth of Hercules will be shaped in the future by the same considerations as it has in the past, for in spite of the importance of technological and market considerations, the entrepreneurship of a firm will largely determine how imaginatively and how rapidly it exploits its potentialities.



Albert Fink and the Pooling System

Albert Fink

¶ In the energetic attempt to control destructive competition through pooling, Albert Fink occupied a position of prominence analogous to that enjoyed by Morgan in the consolidation movement that was to follow. Fink's rational advocacy did much to dispel the notion that the railroads were exercising irresponsible censorship over the affairs of the business community. His rate-making ideas and techniques were a lasting contribution to scientific railroad management.

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Having cleared its path so far, society went back to its work, and threw itself on that which stood first — its roads. The field was vast; altogether beyond its power to control offhand; and society dropped every thought of dealing with anything more than the single fraction called the railway system. This relatively small part of its task was still so big as to need the energies of a generation, for it required all the new machinery to be erected — capital, banks, mines, furnaces, shops, power-houses, technical knowledge, mechanical population, together with a steady remodelling of social and political habits, ideas and institutions to fit the new scale and suit the new conditions. The generation between 1865 and 1895 was already mortgaged to the railways, and no one knew it better than the generation itself.¹

To Henry Adams the railroad was the shaping influence of the post-Civil War era. In 1865 there were 35,085 miles of railroad in

¹ Henry Adams, *The Education of Henry Adams* (New York, 1931), p. 240.

operation in the United States.² By 1880 the rail system had grown to 93,262 miles, nearly half of which had been built in the decade 1870-1880.³ Before 1865 the growing western cities of Chicago, Cincinnati, Indianapolis, St. Louis, Detroit, Toledo, Peoria, Columbus, and Cleveland were linked to the eastern seaboard by one or more railroads.⁴ After the war, roads were built fanning out from the older population centers into the untapped prairie states. The flood of postwar settlers did not become the subsistence farmers of the old Northwest, at least not for long.

European demand for wheat, corn, and meat products had, even by the middle 1850's, begun to bring about a change in western farming. Large-scale single crop farming became profitable so long as the crops could be brought cheaply to market by rail. Because the transportation charges often determined the marketability of their products, the farmers were peculiarly sensitive to railroad policy. Monopolistic marketing groups allied with the railroads were important causes of the farm protest movement of the Grangers in the late 1860's and early 1870's.⁵ The railroads provided an easy target upon which agricultural discontent concentrated, especially in areas served by a single road. The result was a spate of restrictive railroad legislation throughout the so-called Granger states.⁶ In the depression following the Panic of 1873, railroad competition was intensified.⁷ Rate wars both in the West and among the great trunk lines to the seaboard lowered the rates to a level well below that envisioned by even the most radical of the Grangers.⁸ By 1875, Charles Francis Adams, Jr., a leading expert on the railroads and a Massachusetts Railroad Commissioner, wrote of the movement as a "phenomenon of the past."⁹ After 1875 the railroads became more of a problem to themselves, as far as rates were concerned, than to their customers.

The first really large-scale American capitalists were occupied with uniting segments of the locally built railroads into effective

² U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States - 1789-1945* (Washington, 1949), p. 200.

³ *Report of the Select Committee on Interstate Commerce*, 49th Cong., 1st Sess., Senate Report No. 46, Part I (Jan., 1886), pp. 9, 15.

⁴ George Rogers Taylor and Irene D. Neu, *The American Railway Network, 1858-1890* (Cambridge, 1956). Maps following the text show the railway network in 1861.

⁵ Solon J. Buck, *The Granger Movement* (Cambridge, 1913), pp. 9-19. Also Henrietta M. Larson, *The Wheat Market and the Farmer in Minnesota, 1858-1900* (New York, 1926), pp. 74-93.

⁶ Buck, *The Granger Movement*, p. 7 and map opp. p. 61 show the extent of the movement. Pages 123-237 describe Granger railroad legislation in detail.

⁷ William Z. Ripley, *Railroads Rates and Regulation* (New York, 1912), p. 22.

⁸ Larson, *The Wheat Market*, pp. 122-123. Significant reductions in through rates began first. On the local lines the decline was slower but continuous after 1875.

⁹ Charles Francis Adams, Jr., "The Granger Movement" in *North American Review*, Vol. 120 (April, 1875), p. 395.

units for long-distance transportation. Originally railroads had simply linked local markets in a well-defined territory.¹⁰ Variety in rail gauges emphasized a spirit of exclusiveness intended by the original builders.¹¹ In July, 1866, at the insistence of the railroad interests, Congress passed a law authorizing railroad companies chartered by the states to carry passengers across state lines and to connect with railroads of other states.¹² The post-Civil War era was characterized by the consolidation of small local lines into larger complexes, often with surprising and unforeseen consequences.

By 1874, four great trunk lines extended their services between Chicago and the eastern seaboard. Either through direct ownership or alliance with other railroads these trunk lines linked New York, Boston, Philadelphia, and Baltimore with the principal cities along the Great Lakes and the Mississippi and Ohio Rivers. Over 90 per cent of all commerce between the West and the seaboard cities was estimated in 1876 to be by rail.¹³ Fierce competition among the trunk lines for this valuable cargo was the inevitable result of the consolidation of the railroad network. Each new link seemed to add another competing, though often devious, route between East and West. Joseph Nimmo, Jr., in his *First Annual Report on the Internal Commerce of the United States* noted that: ¹⁴

The control exercised by the great trunk railroad companies over their competitive traffic is from year to year growing weaker, and the local or non-competitive traffic is continually being invaded by the increasing influence of the various elements of competition. There is a constant demand for the construction of branch roads cutting across existing trunk roads, and forming new competing lines. These branch roads in some cases eventually form parts of great trunk lines between different sections of the country. . . . So long as the lateral lines are confined to local traffic, they usually pursue a policy of neutrality in so far as it may be practicable for them to do so, but in reality every new railroad is a competitor of all other roads through development of new sources of supply to the various markets of the country.

So serious had railroad competition become by the middle 1870's that plans for cooperation and federation were undertaken among the roads to preserve the value of their property. Where competition was keen the shippers frequently forced the rates down to a level that threatened the solvency of the lines. But where there was little

¹⁰ *First Annual Report on the Internal Commerce of the United States*, House Exec. Doc., 44th Cong., 2d Sess., No. 45, Part 2 (June 30, 1877), p. 19.

¹¹ Taylor and Neu, *Railroad Network*, pp. 19, 30-32, 83.

¹² *First Annual Report Internal Commerce*, p. 175.

¹³ *Ibid.*, p. 8.

¹⁴ *Ibid.*, p. 78.

or no competition the rates were comparatively high and shippers blamed the railroads for the disadvantage they suffered in competing with their more fortunate brethren.

Railroad cooperation was motivated by a desire to maintain the profitability of the lines. Popular demand for railroad regulation was motivated chiefly by a desire to wipe out arbitrary rate discriminations. Paradoxically the solution to both problems lay in much the same direction. The need for a rational and equitable rate structure was the heart of the railroad problem. Regional associations of railroads and at least temporary pooling of traffic were the means by which this rate structure was devised. A study of the career of Albert Fink, the central figure in railroad pooling, will illustrate the means by which the railroads were eventually enabled to deal with their customers in a mutually satisfactory manner.

• • •

Henry Adams said that with the coming of the railroad "life took on extravagance." It was a rare individual that did not lose his sense of proportion amidst the "extravagance" of the post-Civil War decades. The economy seemed almost beyond the comprehension and control of the men who managed it. Some men by keeping their attention fixed on the realities of their situation steadily contributed to the solution of major business problems. Albert Fink grew up with American railroading. His career developed logically from the specialized fields of railway building and engineering to operation and management and culminated in the generalized activity of finding broad solutions for railroad problems in railway associations.

Born in Lauterbach, Hessen-Darmstadt, in 1827, Fink was the son of an architect. He received a classical education in secondary school. At the Polytechnic school in Darmstadt, from which he graduated with honors in 1848, he took a course in engineering and architecture. For about a year following graduation Fink worked with a contracting firm near Frankfurt am Main, but he left this work to prepare himself for emigration to America.¹⁵

Albert Fink's first American job was in the drafting office of the Baltimore & Ohio Railroad under Benjamin H. Latrobe. At the age of twenty-five and only three years after his arrival in America, Fink designed a bridge to cross the Monongahela River at Fairmont,

¹⁵ *Transactions of American Society of Civil Engineers*, Vol. XLI (June, 1899), pp. 626-638. Memoir prepared by O. Chanute, Rudolf Fink and H. C. Prout, pp. 626-627. Rudolf Fink, brother of Albert Fink, became president of the Norfolk & Western Railroad. Another brother, Henry, worked for the L. & N.

West Virginia, which when completed was the longest iron railroad bridge in the country.¹⁶ Later Fink was placed in charge of construction on the section from Grafton to Moundsville, West Virginia, where he acquired valuable field experience.

Although the Louisville and Nashville Railroad was chartered in 1850, the problem of accumulating enough capital to complete a line between the two cities was not solved until 1857.¹⁷ In that year the L. & N. hired Albert Fink as construction engineer to help build its line through the hilly country between Louisville and Nashville. Not only did Fink devote himself to his specialty of iron bridges, but he designed the main freight and passenger station at Louisville and lent his talents to design and build the Louisville Courthouse as well.¹⁸ In 1859, he was made Chief Engineer and Superintendent of the Road and Machinery Departments.¹⁹ Thus, on the eve of the Civil War, Fink was responsible for the actual operation of the principal rail link between the North and the Cotton Kingdom. When war came the L. & N. sided with the Union and provided a valuable highway of supply into enemy territory. In spite of frequent damage by enemy patrols, Fink kept the road open by means of constantly mobilized repair parties. Throughout the war the L. & N. remained in profitable operation.²⁰ Instead of the almost total impoverishment suffered by the majority of southern railroads the L. & N., aside from considerable physical damage, was enriched and expanded by the war.²¹

Between 1865 and 1875 the L. & N. expanded its mileage from 286 to 920 miles by building and by consolidation of other roads. "Up to the close of the war our road was operated exclusively as a local one," stated the *Annual Report* of 1868. "We are now competing with the various other transportation companies for the through traffic of the entire South."²² During this period Fink completed his last major engineering project, a mile-long, 27-span bridge over the Ohio at Louisville.²³ In 1870, he became a vice

¹⁶ *Ibid.*, p. 627. Also "American Engineering as Illustrated at the Paris Exhibition - The American Bridge Building" in *Railway World*, Vol. V (June 7, 1879), p. 533.

¹⁷ Thomas D. Clark, *The Beginnings of the L. & N.* (Louisville, 1933), p. 47.

¹⁸ Julius H. Parmelee, "Fink, Albert (Oct. 27, 1827-April 3, 1897)," Typewritten manuscript of an article for *Dictionary of American Biography* in Bureau of Railway Economics Library, Washington, D.C.

¹⁹ A.S.C.E., *Transactions*, Vol. XLI, p. 629.

²⁰ Joseph G. Kerr, *Historical Development of the Louisville and Nashville Railroad* (n.p., 1926), pp. 20-43.

²¹ Jean E. Keith, "The Role of the Louisville and Nashville Railroad in the Early Development of Alabama Coal and Iron," *Bulletin of the Business Historical Society*, Vol. XXVI (Sept., 1952), p. 167.

²² Kerr, *Historical Development of the L. & N.*, p. 63.

²³ Kincaid A. Herr, *The Louisville and Nashville Railroad, 1850-1952* (Louisville, 1943), p. 24.

president of the L. & N. and as chief operating executive began to concentrate on the financial details of railroading.

As an officer of the railroad, Fink developed a technique of cost analysis that was to have an important effect on his subsequent career. Writing of the period just prior to the passage of the Interstate Commerce Act of 1887, William Z. Ripley noted that only a few companies "... such as the Pennsylvania, the Union Pacific and the Louisville and Nashville, had indeed attempted to systematize their accounts."²⁴ The system worked out by Fink attracted nationwide attention with the publication of the L. & N.'s *Annual Report 1873-4*.²⁵ More than a recital of the facts and figures of L. & N. business for the previous year, this *Report* was actually a lesson in railway economics and a carefully prepared defense of railroad rate-making policies with an eye to the experience of railroads in the Granger states.

To estimate the value and economy of a road, Fink pointed out, the detailed figures covering a period of years for each section of road operated would be necessary. The proportion of net to gross earnings was not a reliable figure. He illustrated his argument with figures for the various branches of the L. & N. where operating costs varied greatly. "The disregard of the facts," he warned, "in estimating the cost and value of railroad transportation with a view to judging the reasonableness of railroad tariffs has led to many erroneous conclusions, which appear now fixed in the public mind."²⁶ In some states the mistaken notion that there was a uniformity in the cost of transportation had resulted in legislation enforcing uniformity of compensation. Fink pointed out that the proper basis for rail tariffs was the cost of service and from this necessarily followed the "impossibility of enacting general laws establishing tariffs applicable to *more than one road*."²⁷ Such factors as the volume of business, cost of construction, maintenance, fuel, interest charges etc., all varied considerably even on the various branches of the L. & N. Although the charter of the L. & N. set maximum legal rates from 7 cents to 10.2 cents per ton per mile the actual charge made by the road was an average 2.172 cents.²⁸ The natural forces of competition prevented a higher charge, a factor over which the railroad's managers had no control:²⁹

²⁴ Ripley, *Railroads Rates and Regulation*, p. 44.

²⁵ Louisville and Nashville Railroad, *Annual Report, 1873-4* (Louisville, 1875), "Report of the Vice-President and General Superintendent," pp. 21-67, plus tables.

²⁶ *Ibid.*, p. 39.

²⁷ *Ibid.*, p. 32.

²⁸ *Ibid.*, p. 59.

²⁹ *Ibid.*, p. 57.

Different localities are more or less favored in regard to transportation facilities, either by nature or the enterprise of man. It can not be maintained that it is the duty of the common carrier to equalize the existing inequalities at his own expense. All that is required of him is not to create them himself arbitrarily. He must treat all alike that are situated alike. . . . He may be obliged to carry freight at a lower rate to some localities than to others, but this in itself does not constitute an injustice or injury to the shipper in a less favored locality, as long as the charges made are reasonable in themselves and alike to all in the same situation.

Competition among the railroads was the chief source of rate discrimination. Where rail and water routes competed, the community had the benefit of lower rates than its inland competitors. This result of natural factors could not be considered unjust. However, where a large shipper was given advantages not given a smaller shipper, though unit costs of transportation were no different, unjust discrimination resulted. Fink suggested that if the railroad companies could agree among themselves to stop competition to junction points "one of the most fruitful causes of complaint against discrimination in railroad tariffs would at once be remedied; but it would be at the expense of the benefit of competition."³⁰ This was a suggestion Fink was soon to have the opportunity to test.

* * *

The impact of the depression which followed the Panic of 1873 was especially hard in the South. Southern capital resources were limited and railroad building came to an almost complete halt. Traffic along the railroads shrank to a point that endangered the solvency of almost every line.³¹ Along with the general business depression came a series of rate wars among the railroads fighting each other for what little business was offered. A cooperative venture was needed to prevent a wave of railroad failures.

In September, 1875, a convention of the Southern Railway and Steamship Association met in Atlanta.³² The purpose of the meeting was to discover some means of curbing competition, maintaining rates and ending the threat to the financial security of southern railroads. Albert Fink had resigned from the L. & N. in July and was making plans for a vacation trip to Europe. Although he was unable to attend the convention he wrote a letter to J. E. Brown, the convention president, in which he outlined a plan for cooperative ac-

³⁰ *Ibid.*, p. 58.

³¹ Henry Hudson, "The Southern Railway and Steamship Association," *Railway Problems*, William Z. Ripley, ed. (Boston, 1907), p. 99.

³² *Proceedings of the Convention of the Southern Railway and Steamship Association held at Atlanta, Georgia, September 16 and 17, 1875 and October 13, 1875* (Atlanta, 1875).



Watering Place

tion.³³ On the basis of Fink's suggestions the southern pool was formed; he was elected the first commissioner of the Southern Railway and Steamship Association as well.

Fink's plan was to divide the traffic between junction points among the competing railroads. The portion allotted each road was to be based on previous experience as recorded by the statistical branch of the Association. Rates were to be set by special committees for each junction point on which the roads concerned were to be represented. The portion of pooled traffic allotted each road was to be revised at the end of each year and a new allotment assigned on the basis of business obtained by "fair competition," i.e., by not cutting rates. The first question in the formation of such a pool, Fink noted, was ". . . whether each individual road is will-

³³ *Ibid.*, pp. 10-16. Fink's letter was dated Sept. 14, 1875.

ing, in case of conflict, to surrender the necessary authority to that tribunal to decide all questions of difference?"³⁴

"There is only one power," he wrote, "that can compel adherence to compacts of this nature — it is that of 'self-interest.'"³⁵ The success of the scheme depended upon the members' willingness to hold the level of rates steady and not to circumvent the pool by means of secret rebates to shippers. Independent action on the part of a single road could ruin the whole structure.

All decisions on rates and pooling were to be unanimous. But the commissioner was given considerable power in the settlement of disputes. In case of disagreement the commissioner was to settle the matter on its merits. Should the members still not concur in his judgment an outside arbitrator was to be called in and his decision was to be final.³⁶ The main work of the Association was carried out by the statistical department and the various rate committees.

The southern pool seems to have justified the hopes of its originator, Albert Fink. After a difficult beginning, the plan proved successful and remained in existence more or less in its original form until 1887, when the Interstate Commerce Act of that year forbade pooling.³⁷ It did reduce the number and severity of the rate wars in its territory. There were few complaints of unjust rates or discriminations.³⁸ The process of joining unconnected lines and thereby creating new routes between competitive junctions continued despite the pooling of traffic.³⁹ The pool remained as a stabilizing factor, its allotments changed only by proven demand for new routes while the rates were maintained at a profitable level, preventing sudden ruin by quixotic shifts in traffic. So successfully did the scheme harness the revolutionary forces acting upon railroad organization that, according to Joubert, consolidation and combination of railroad companies took place at a slower rate in the South than elsewhere.⁴⁰

The suggestion that competition could result in anything but good was a somewhat novel one for a businessman of the period to make. But the apostasy of Albert Fink went further than this. In a letter to Joseph Nimmo, Jr., author of the *First Annual Report on the Internal Commerce of the United States*, he declared, "Whether

³⁴ *Ibid.*, p. 10.

³⁵ *Ibid.*, p. 14.

³⁶ *First Annual Report Internal Commerce* (appendix pages 16-19 describe the agreement and organization), p. 18.

³⁷ William H. Joubert, *Southern Freight Rates in Transition* (Gainesville, Florida, 1949). Joubert's book contains the most extensive estimate of the pool's accomplishments. See pp. 51-63.

³⁸ *Ibid.*, p. 62.

³⁹ *Ibid.*, p. 45.

⁴⁰ *Ibid.*, p. 63.

this cooperation can be secured by voluntary action of the transportation companies is doubtful. Governmental supervision and authority may be required to some extent to accomplish the object in view."⁴¹ From the outset, Fink was aware of the monopolistic, non-competitive nature of his pooling experiment and believed in the logic and justice of governmental supervision.

It was undeniable that competition had greatly reduced the freight rates. But Fink told Nimmo that the "true and proper plan . . . to cheapen transportation is to concentrate the business of the country upon the fewest number of railroads."⁴² Fink wanted a scientific answer as to whether or not the railway network was adequate. From his position in the southern pool the southern network seemed more than adequate.

Growth and change in the internal trade of the United States was taking place at such a rate that venture capital went into railroads in ever-increasing volume long after 1876. Business expectations in the so-called Gilded Age were not based on statistics. The large amounts of capital available for railroad speculation greatly increased the difficulty of rationalizing the rate structure, as Fink was to learn when he came to deal with the territory of the great trunk lines.

• • •

Railroad competition was nowhere more intense than between the Midwest and the eastern seaboard. Albert Fink had noted that a change in the freight rate between Chicago and New York altered the rate structure of the Southern Railway and Steamship Association. The rate structure of the whole country, he believed, was based on the rates between these two cities.⁴³

In August, 1874, three months before the Baltimore and Ohio Railroad completed its line into Chicago, the presidents of the four trunk line roads: the New York Central and Hudson River; the New York, Lake Erie and Western; the Pennsylvania; and the Baltimore and Ohio, met at Saratoga, New York, in an effort to make peace and forestall another rate war which a new line into Chicago would inevitably touch off.⁴⁴ Although an agreement was reached, conditions were not conducive to peace and it was not observed. A foreign antagonist, the Grand Trunk of Canada, entered the fray in 1875 by means of a service from Chicago via the Michigan Central

⁴¹ *First Annual Report Internal Commerce* (appendix pages 1-16), p. 12. Letter dated Louisville, May 1, 1876.

⁴² *Ibid.*, p. 7.

⁴³ *Ibid.*, pp. 9-10.

⁴⁴ Lee Benson, *Merchants, Farmers and Railroads* (Cambridge, 1955), p. 39.

into Canada and back into the United States to Boston, New York, and the other seaboard cities via the Central Vermont. During 1876 the bitterest of all rate wars up to that time was fought.⁴⁵ Enormous losses in revenue were suffered by all the roads involved. Not only the protagonists lost, but the investing public as well. Confidence in American railroad securities was severely shaken.⁴⁶

Much of the warfare was directed toward diverting freight away from New York to Boston, Philadelphia, and Baltimore. Vanderbilt's New York Central fought desperately for its share of the trade. While New York merchants profited by the low rates resulting from such warfare, their advantage was largely at Mr. Vanderbilt's expense. It is not surprising, therefore, that they were upset at the nature of the agreement devised to prevent further losses by the Central. The first part of a general compromise was reached when the four trunk lines signed the Seaboard Differential Agreement on April 5, 1877.⁴⁷ Differentials had been tried before, but never had they been placed on such a fixed basis.⁴⁸ Rates on eastbound freight to Philadelphia and Baltimore were to be 2 and 3 cents per 100 pounds lower respectively than New York. Rates to Boston were to be no less than those to New York. On all westbound traffic, differences on third-class and fourth-class freight were to be the same as on eastbound, while first-class and second-class differentials from Philadelphia and Baltimore were set at 6 and 8 cents. Business interests in New York charged that the natural advantages of that great port had been sacrificed in order to purchase railroad peace.

A second agreement, designed to reinforce the first, went into effect in July, 1877. This was the pooling of all westbound freight from New York among the four trunk lines. Under the pooling agreement the New York Central and the Erie received 33 per cent, the Pennsylvania received 25 per cent and the remaining 9 per cent was allotted to the Baltimore and Ohio.⁴⁹ To keep statistics on the allotments for the pool and to study detailed rate questions, a permanent organization called the Trunk Line Association was established. In most respects this Association was similar to the Southern Railway and Steamship Association. Similarly, its organizer was Albert Fink.

Fink had reached New York on his way to Europe in time to be called in by the Trunk Lines' representatives to consult with them

⁴⁵ *First Annual Report on Internal Commerce*, p. 62.

⁴⁶ Benson, *Merchants, Farmers and Railroads*, pp. 49-50.

⁴⁷ John B. Daish, *The Atlantic Port Differentials* (Washington, 1918). Text of the agreement is found on pp. 2-3.

⁴⁸ *Ibid.*, pp. xiv-xv.

⁴⁹ Benson, *Merchants, Farmers and Railroads*, p. 47.

on their projected plans for settling the rate war. He impressed them so much that he was asked to serve as commissioner of an association organized along the lines he suggested.⁵⁰ Maintenance of rates at a profitable level was the main object in view. Pooling and the differentials were simply the means of creating a peaceful atmosphere in which a rational and profitable rate structure could be determined. During the first year, Fink and the railroad representatives gathered traffic statistics and improved the system of regional rate committees.

The process of making railroad tariffs was not a hurried one. As Ripley has pointed out in his authoritative book on railroad rates, "Tariffs are not made out of hand; they grow."⁵¹ Tariffs are based on experience and to be reasonable and just the experience should be "normal" or peaceful. The rate theory used in the trunk line territory was simple enough, although, in practice, matters to be considered in setting each rate were complex. The rate between Chicago and New York was considered the "base rate." All rates to the seaboard were expressed in percentages of Chicago to New York.⁵² Distance determines cost of service to a great extent and the trunk line tariff was a modified distance tariff. A tariff map of the trunk line territory (there is such a map in Ripley's book) looks like a contour map of the United States extending from the eastern seaboard west to the Mississippi and Ohio Rivers.⁵³ Like great irregular, concentric rings, the contour lines of equal rates circle New York in ever-rising succession as they extend westward. Beyond Chicago these lines represent rates exceeding 100 per cent of Chicago to New York. The north-south irregularities in many cases follow the line of an important north-south railroad with frequent junctures with east-west trunk lines along its route. Ripley is almost poetic in his description of this system:⁵⁴

Since his time [Albert Fink's] by reason of cooperative action for a generation, the confusing maze of railway lines has now [1912] been reduced to a single comprehensive system. Cross-currents of trade hither and thither have been united or articulated in such a way as, speaking in terms of freight charges, to cause the great internal commerce of the country to flow downhill toward the seaboard in an orderly and reasonable way. The inequalities incident to commercial competition have been modified, or, to revert to our original figure, eroded; so that one may literally speak of the products of the country as flowing, like rivers, in

⁵⁰ *Ibid.*, p. 46. A.S.C.E., *Transactions*, p. 634.

⁵¹ Ripley, *Railroads Rates and Regulation*, p. 101.

⁵² *Ibid.*, p. 363.

⁵³ *Ibid.*, opposite p. 364.

⁵⁴ *Ibid.*, p. 367.

more or less natural channels over the railway lines from the great interior basin towards the Atlantic seaboard.

A tariff map of this area, if it had been drawn in 1878, would have shown great sloughs cutting through the contours along the routes of the trunk lines. These would represent the effect of rate warfare. Competition beyond the western termini of the trunk lines resulted in all manner of rate-cutting, the losses from which the western roads expected the trunk lines to share.

At a meeting of railroad executives, representing both the trunk lines and the western roads, held at Saratoga in August, 1878, it was decided to form a Western Executive Committee to pool traffic and establish rates on freight in which they had a mutual interest.⁵⁵ In November of the same year, Fink suggested that because the rates from western points were in part dependent upon trunk line rates a joint executive committee be set up with headquarters in New York. Working subcommittees in the various junction cities, composed of representatives of interested member lines, were organized to do the basic work of pooling traffic and determining rates, subject to approval of the Joint Executive Committee.⁵⁶ Final arrangements establishing the Joint Executive Committee were made at a convention of eastern and western railroad executives held at Chicago, December 18 and 19, 1878.⁵⁷ Albert Fink was elected chairman, a position he held in addition to that of Trunk Lines' commissioner. A detailed agreement was signed by the member roads. Article 12 of this agreement provided that in case any question brought before the committee did not receive unanimous action it was to be referred to the chairman "who shall decide the case on its merits, and whose decision shall have the same force and effect as the unanimous vote of the Committee."⁵⁸ Should any party then remain unconciled there was provision for arbitration. The chairman of the Joint Executive Committee was thus in a position to wield considerable power over the rate-setting policies for a very large and important area of the country.

In practice the Joint Executive Committee was largely a creature of the Trunk Line Association. Its executive meetings were usually called on the recommendation of the Trunk Line Executive Com-

⁵⁵ Joint Executive Committee, *Proceedings of the Railway Convention held at Saratoga, August 20-24, 1878* (New York, 1880). Pamphlet bound with the *Proceedings and Circulars of the Joint Executive Committee*, 1878, p. 77.

⁵⁶ Joint Executive Committee, *Proceedings, Meeting, Nov. 8, 1878*, p. 7.

⁵⁷ J.E.C., *Proceedings*, 1878. *Proceedings of a Convention of Officers of Eastern and Western Railroads held at the Grand Pacific Hotel, Chicago, December 18 and 19, 1878* (Chicago, 1878), see especially pp. 5-8.

⁵⁸ *Ibid.*, p. 7.

mittee. Thanks to the leadership of Albert Fink the regional subcommittees performed their specialized tasks of rate-making and pooling despite the numerous rate wars and fundamental disagreements among railroad executives higher up. Their work could be truthfully compared to that of a diplomatic corps carefully planning peace, in spite of frequent wars raging about them.

Pooling of eastbound traffic from Chicago, St. Louis, Indianapolis, Peoria, Louisville, and Cincinnati was organized during the first year.⁵⁹ The *Proceedings and Circulars* of the Joint Executive Committee were published and open to the public.⁶⁰ There was nothing conspiratorial about pooling. Fink could never understand why it did not appeal to the common sense of *all* railroad executives, men who were in a position to see the high cost of other alternatives. But in railroad finance there were speculators who were not interested in a stable rate system. These men were looking for bonanzas from market fluctuations. Rate wars were a useful means of creating a fluid market and manipulating the value of railroad securities.

In 1879, Albert Fink was called upon to describe and defend the trunk line rate and pooling system before the Hepburn Committee of New York State and the Committee on Commerce of the United States Senate. These were the first of many such appearances he made prior to the passage of the Interstate Commerce Act in 1887.

The Hepburn Investigation first focused attention on pooling and helped arouse both the public and the merchants against it. Farmers, millers, and manufacturers of upstate New York combined with the merchants of New York City to bring about the investigation. The New York merchants believed that their trade was being diverted to other cities by the effect of the differentials, while the upstate people claimed that the railroads charged them arbitrarily high rates at the same time they granted bargain rates to shippers from outside the state.⁶¹ In the course of the investigation many instances of secret and discriminatory rate-making were revealed, but it became obvious that the larger shippers and not the railroads controlled the situation wherever significant competition existed.

Simon Sterne, investigation counsel, questioned Fink before the Hepburn Committee on June 20 and 21, 1879.⁶² Much of his ques-

⁵⁹ *Report on the Internal Commerce of the United States*, 45th Cong., 3d sess., House Exec. Doc. No. 32, Part 3 (Dec. 1, 1879), p. 168.

⁶⁰ *Ibid.*, p. 170.

⁶¹ Benson, *Merchants, Farmers and Railroads* is the best study of the origin of the Hepburn Investigation. See especially Chap. VI.

⁶² New York Assembly, *Proceedings of the Special Committee on Railroads* (Albany, 1879), Vol. 1, pp. 481-541, 556-636.

tioning was on the subject of the peculiar competitive situation of the railroads. Why, he asked, were railroads different from other businesses in regard to competition? Fink replied that they were not different except in competition with each other. Railroad competition with water routes was normal. Sterne was searching for general principles of railroad economics:⁶³

Q. Do you think there is a law as to railroads?

A. Yes; there is a law as to railroads, that the public should be served alike by common carriers; if that law is to be carried out, it is necessary that you eliminate the element of competition as between these railroad companies; you cannot have the two at the same time.

Fink was asked to explain the operation of the Trunk Line Association and the Joint Executive Committee. He pointed out that the latter organization was the rate-making power of the trunk lines.⁶⁴ His office, he explained, consisted of from 60 to 65 clerks who collected statistical information for use in the pooling allotments and rate-making. The budget for the whole office including his own salary was about \$5,000 per month. This amount was shared mostly by the four trunk lines, but a part was paid by the western roads.⁶⁵

The Hepburn Committee was particularly interested in the position of the New York Central. Fink told the committee that the Central would certainly be ruined by all-out competition over any extended period of time, despite its great resources. By driving its competitors to bankruptcy, the Central would not force them out of operation. In receivership, with no interest or dividends to pay, competitors could easily force the Central into the same position.⁶⁶ Though the differentials might be objectionable they were a necessary concomitant to railroad peace.

In New York State the Erie Canal assured low through rates during most of the year by its competition for freight with the railroads. But once rail competition forced the railroad rates below those of the canal, New York would lose all advantage it could legitimately claim over the other seaboard cities. Fink pointed out that both as to distance and actual cost of service Philadelphia and Baltimore possessed far greater advantages than were secured to them by means of the differentials.⁶⁷

Fink's testimony made a deep impression on the Hepburn Com-

⁶³ *Ibid.*, p. 563.

⁶⁴ *Ibid.*, p. 575.

⁶⁵ *Ibid.*, pp. 570-571.

⁶⁶ *Ibid.*, p. 565.

⁶⁷ *Ibid.*, Vol. IV, pp. 106-119, Exhibit No. 1 for June 21, 1879.

mittee and upon its counsel, Simon Sterne. Here was a railroad man who talked facts and did not lose his temper trying to justify railroad actions. His arguments made sense and his logic destroyed a great deal of the indictment that the railroads were exercising an irresponsible censorship over the affairs of the business community. There were injustices that could not be denied, mostly on a local level and frequently attributable to the bargaining position of large shippers in places like Buffalo where one road could be played against another. The committee was impressed by the fact that the railroads were subject to competing forces beyond the reach of state government and that pooling seemed to be the only way to control this competition.⁶⁸ "The business of transportation," the committee stated in its *Report*, "requires the greatest freedom of management of any business extant."⁶⁹

National railroad legislation had been under discussion for several years when Albert Fink appeared before the Senate Committee on Commerce in 1879.⁷⁰ The Reagan Bill had passed the House of Representatives in December, 1878, and thorough investigation was being conducted by the Senate as to the merits of this bill. Fink attacked the Reagan Bill as a kind of Granger law aimed at the symptoms of trouble not the actual causes. It was based, he said, on the assumption that the rate structure was unfair. "No serious difficulty," he told the committee, "is experienced by the competing railroad companies in the country in agreeing upon and establishing tariffs entirely satisfactory to the commercial community and to the people."⁷¹ The problem was to ensure that these tariffs were maintained. No provision of the Reagan Bill ensured this. Briefly he explained the trunk line rate structure and showed that nowhere would the long haul be charged less than the short haul on through traffic.

One provision of the Reagan Bill that Fink welcomed was the requirement that rates be made public.⁷² This, he thought, might tend to make rail tariffs more permanent. The bill forbade pooling, but provided no protection against rate warfare to which the roads would inevitably resort to secure the portion of traffic to which they believed themselves entitled.

⁶⁸ Closing argument of Simon Sterne on behalf of the Chamber of Commerce and the Board of Trade and Transportation (New York, 1880), p. 29. Part of Hepburn Comm. Proceedings.

⁶⁹ New York Assembly, *Report of the Special Committee on Railroads* (Albany, 1879), p. 75.

⁷⁰ Albert Fink, *Argument Before the Committee on Commerce of the Senate of the United States on the Reagan Bill* (New York, 1879), p. 28.

⁷¹ *Ibid.*, p. 5.

⁷² *Ibid.*, p. 7.

Fink suggested to the committee what he thought was a proper transportation law. He would have retained the first two sections of the Reagan Bill, which provided that the railroads must offer equal facilities without discrimination and which outlawed rebates and drawbacks.⁷³ To those sections he wanted to add the following:⁷⁴

Sec. 3. That all competing railroad companies shall jointly establish a tariff for all competing points.

Sec. 4. That the tariff so established shall be submitted to a commission of experts appointed by the Federal Government, and if they find that the tariff is just and equitable and based upon correct commercial principles, and not in violation of the common laws governing common carriers, then such tariff shall be approved, and shall become the law of the land, until changed in the same manner by the same authority.

Sec. 5. In cases where railroad companies cannot agree upon such tariffs, or upon any other questions such as might lead to a war of rates between railroad companies, the questions of disagreement shall be settled by arbitration, the decision of the arbitrator to be enforced in the United States Courts.

This suggestion is surprisingly similar to the actual rate-making and rate-revision process before the Interstate Commerce Commission today. Fink admitted that his amendments to the Reagan Bill were offered on his own responsibility. What the railroad managers and proprietors might think of his suggestions he was "not prepared to say." But as Fink put it, they were just as anxious as the public that the "*object* of the Reagan Bill be carried out."

The House Committee on Commerce held hearings on the Reagan Bill in January, 1880. On this occasion Fink repeated much of what he had said to the Senate Committee eleven months before.⁷⁵ However, he added some remarks in defense of pooling, possibly because he was disturbed by a growing public opposition to pooling as a monopolistic device. "The plan I propose," he said, "prevents that very centralization and absorption of the roads under absolute control of one or few persons. It makes the separate, individual existence of these roads possible, and puts a check upon the consolidation of roads. . . ." ⁷⁶

In the year 1880, 115 railroad companies lost their identity in larger combines.⁷⁷ Unrestricted competition was one of the prin-

⁷³ *Ibid.*, Reagan Bill is found on pp. 23-28.

⁷⁴ *Ibid.*, p. 12.

⁷⁵ Albert Fink, *The Railroad Problem and its Solution* (New York, 1880) is a reprint of his testimony.

⁷⁶ *Ibid.*, p. 24.

⁷⁷ Edward G. Campbell, *The Reorganization of the American Railroad System* (New York, 1938), p. 12.

cial causes of railroad failures and the usual fate of a bankrupt or weakened road was to be swallowed up by one of its former competitors at a bargain price.⁷⁸ While there was wisdom and justice in a great deal of railroad consolidation there were instances of roads being ruined and disappearing in the maze of a speculative empire. The members of a voluntary federation which maintained the rates stood a better chance of surviving to perform the services for which they were built or of being purchased at a fair price.

In May, 1880, after a successful year for the pooling system, Albert Fink notified the Joint Executive Committee that he had fully attained the personal objectives he had in mind when he helped organize the pool. Experience had established the practicability of the pooling method and Fink could not conceive of the possibility of returning to "the former methods and mismanagement of the transportation business."⁷⁹ Events proved his optimism somewhat premature.

When testifying before the House Commerce Committee in January, Fink had warned that the new line being built into Chicago by the Grand Trunk of Canada might very well touch off a series of rate wars.⁸⁰ The situation was analogous to that of 1874 when the Baltimore & Ohio was building into the same city. In August, Fink announced to the Joint Executive Committee that the Grand Trunk had been invited to become a member of the Trunk Line Association.⁸¹ On this occasion he reaffirmed his conviction that the surest method of maintaining rates was to be found in the perfection of the pooling system. What had been done so far in regard to eastbound traffic he regarded as "merely a crude beginning." Pooling the traffic of connecting roads was the next step.

At this stage of its development the Trunk Line Association had only one coercive measure at its command. When a line resorted to rate-cutting, the Association could immediately order the rates on competing lines lowered to the new level.⁸² This action was usually accompanied by a warning from Commissioner Fink in which he enumerated in detail the revenues that would be lost by the rate cut. Frequently this method brought about a reform. But at times it was difficult to detect rate-cutting or to what extent rates had been lowered. This was due to the various forms of subterfuge developed to hide cut rates.

⁷⁸ Stuart Daggett, *Railroad Reorganization* (Boston, 1908), pp. 341-342.

⁷⁹ J.E.C., *Proceedings*, 1880, p. 117.

⁸⁰ Fink, *Railroad Problem*, p. 64.

⁸¹ J.E.C., *Proceedings*, 1880, pp. 151-152.

⁸² Trunk Line Association, Freight Department, *Proceedings and Circulars of the . . . Association*, 1880, pp. 47-48.

Rebates were concealed by such tricks as billing freight from a more distant point than actually shipped, methodical underbilling of weight or false classification of cargo. Such methods provided a convenient and hard-to-detect way of affording special consideration to important shippers. To combat these dodges Fink established a system of freight inspection, but he did not expect miracles. His system was not characterized by Prussian efficiency. He was content simply to show the railroads a way to prevent wars. Only time and costly experience, he realized, would convince them.

With the relative success of two years during which there were no major rate wars, Fink recognized that the abolition of rebates and bargain rates might create discontent among the large class of shippers who had grown accustomed to special favors and windfalls. He warned the members of the Joint Executive Committee at a meeting in April, 1881:⁸³

They [the shippers] will appeal through Board of Trade meetings to the prejudices of the people, and complain that the action of the railroad companies in their efforts to establish and maintain a reasonable and properly adjusted tariff throughout the country, is arbitrary and wrong, and should not be permitted.

The apparent lack of flexibility in the rate structure made shippers restive and dissatisfied. As early as February, 1881, Fink looked ahead to a time of trouble. He was sure the rate system was flexible, all too flexible. The rates would not be maintained, he warned the Trunk Line Executives, once the roads entered the season (when the lakes and canals could be used) when their capacities were not fully occupied.⁸⁴ By June, as he had predicted, the whole system was demoralized because "the pooling arrangements were incomplete or violated."

To deal with this general rate war a special meeting of the Joint Executive Committee was called for August 10, 1881. At the special August meeting Fink told the Joint Executives that since June 17 eastbound traffic had been carried for less than one half the average cost of transportation.⁸⁵ The freight solicitors who were busy securing freight at whatever rate was necessary to get the tonnage were at the heart of the problem. Freight agents allowed the solicitors such liberty because they thought that no better bargain could be made and because they forgot in the heat of competition that only their united efforts could secure a remunerative rate for

⁸³ J.E.C., *Proceedings*, 1881, p. 29.

⁸⁴ T.L.A., *Freight Dept., Proceedings*, 1881, p. 157.

⁸⁵ J.E.C., *Proceedings*, 1881, pp. 76-77.

the business.⁸⁶ At the special August meeting the Joint Executive resolved to restore the tariff in effect June 15, 1881, but this was an unstable and ineffective armistice.⁸⁷

On March 2, 1882, the Joint Executive adopted a set of rules for the conduct of the railroad business.⁸⁸ These were largely a reaffirmation of the committee's previous resolutions. However, one important innovation was the appointment of a Joint Agent at all points where traffic was pooled. This agent was to have the power to examine the members' books and bills of lading. All authority to vary rates was withdrawn from the lines and soliciting agents. This power was to be vested in the chairman of the Joint Executive Committee acting with the advice of the committee.

Two weeks after this important meeting, Albert Fink went to Washington to testify before the House Committee on Commerce once more. Pressure for federal legislation had greatly increased since his last appearance. Representative Reagan remarked that there had been "two or three times as many petitions for this legislation as ever came to Congress before."⁸⁹ Less credulous about the petitions than Reagan, Representative Washburne remarked that "someone had distributed these petitions broadcast over the country." Although they came from 35 different states the petitions were all identical.⁹⁰ Fink observed that it was "fashionable to hold the railroads responsible for everything nowadays." The railroad transportation system, he observed, ". . . has worked a greater revolution in our modern civilization than any other single event recorded in history. It could not be expected that such a revolution could take place without friction."⁹¹

As he had predicted to the Joint Executives, the pressure against pooling from Boards of Trade and merchant groups was much increased. He was closely questioned about railroad earnings during the period of successful pooling in an attempt by the committee to verify the accusations that pooling resulted in inordinate profits. Fink told the committee that during 1880, when pooling was most effective, profits were only about 5 per cent on the capital invested.⁹²

While the public was concerned over pooling as a conspiracy to assure the railroads of large profits, Fink was more concerned over

⁸⁶ *Ibid.*, p. 87.

⁸⁷ *Ibid.*, p. 96.

⁸⁸ *Ibid.*, 1882, pp. 22-24.

⁸⁹ Albert Fink, *Argument . . . before the Committee on Commerce of the United States House of Representatives, Washington, March 17 and 18, 1882* (Washington, 1882), p. 4.

⁹⁰ Benson, *Merchants, Farmers & Railroads*, p. 226.

⁹¹ Fink, *Argument March 17 and 18, 1882*, p. 3.

⁹² *Ibid.*, p. 7.

the lack of conviction among railroad proprietors that pools would benefit them:⁹³

Many railroad managers still cling to the idea that they are autocrats, as far as the control of their property is concerned, and that they can dictate terms and force compliance, although the dearly-purchased experience of many years should have shown them that this is not the fact. . . . They do not recognize that they have not the right to use their own property to injure the property of others, and that by their wrangling among themselves for the carriage of a few tons of freight they offset the public interest by creating all the unjust discriminations that arise from purely selfish acts of disagreement between these private corporations.

In 1881, railroad management was a more serious threat to Fink's rate structure and pooling system than public disapproval. Jay Gould, for example, has been accused of setting off the rate wars of 1881 and 1882 in his efforts to profit by speculations in the securities of the Wabash and the Central of New Jersey.⁹⁴ The New York Central was forced to protect itself from Gould, whose hand could be seen in many a project directed against that road. Gould's influence in the building of the West Shore and in the extensions of the Delaware, Lackawanna and Western are two examples. Almost the only power in the securities market sufficiently strong to cope with Gould was William H. Vanderbilt. Vanderbilt was not a speculator nor was he an empire builder like his father, the Commodore.⁹⁵ Basically he was conservative. His stock market moves were made either to preserve the value of his property or to improve it. His support of the Trunk Line Association was probably dictated by the same motives.

The undisciplined jungle of high finance greatly contributed to Albert Fink's problems. In the early 1880's enough speculative capital was available to build the Nickel Plate and the West Shore roads which paralleled Vanderbilt's Lake Shore and the main line of the New York Central. The Delaware, Lackawanna and Western, with Gould's encouragement, began building into Buffalo.⁹⁶ This new construction meant fresh competitive forces in the trunk line territory to which the members would have to adjust. To Vanderbilt it meant a direct challenge to his property, a kind of blackmail he was virtually forced to nullify by purchase. In October, 1882, he did buy control of the Nickel Plate, but he left the West Shore to collapse of itself. The conduct of such men as Gould or the so-

⁹³ *Ibid.*, p. 29.

⁹⁴ Julius Grodinsky, *Jay Gould, 1867-1892, His Business Career* (Philadelphia, 1957), pp. 364, 366-368.

⁹⁵ *Ibid.*, pp. 209-223, 355-376.

⁹⁶ *Ibid.*, p. 221.

called "Seney crowd" brought forth the counterforce of investment conservatism characterized by J. Pierpont Morgan. Where Gould was a chaotic influence, Morgan was a conservative, nearly despotic one.

The year 1884 was a crisis year for American railroading. The West Shore was completed and operating, although it showed signs of financial weakness. Vanderbilt was unwisely giving his support to the construction of the South Pennsylvania Railroad, a project backed by Andrew Carnegie and others interested in breaking the Pennsylvania Railroad's monopoly of the steel traffic from Pittsburgh.⁹⁷ It was rumored that in retaliation interests allied with the Pennsylvania were quietly buying up the securities of the weakened West Shore.⁹⁸ The D. L. & W., abetted by Gould, cut rates on eastbound and westbound traffic.⁹⁹ The Trunk Line system was in a shambles as the roads abandoned their agreements in order to participate in a competitive free-for-all.

In January, 1884, Fink, with the approval of the Joint Executive Committee, sent a letter to Samuel Sloan, president of the D. L. & W., warning him that unless his road agreed to join the Trunk Line pool the western connections would not feel obliged to handle D. L. & W. freight.¹⁰⁰ Sloan had been offered a share in the westbound pool based upon traffic his road had obtained during the previous ten months during which he had operated with cut rates.

"Boycotting pure and simple" the *New York Evening Post* labeled this trunk line threat, and "used in precisely the same spirit with which the trade unions employ it."¹⁰¹ To the *Evening Post* Fink replied, "The Lackawanna can adopt and conform to the rules and regulations under which railroad companies exchange business with each other, but, not desiring to do so, it cannot expect to extend its operations and become a forwarder of freight beyond the line of its own road."¹⁰² Boycotting was the strongest measure the Trunk Lines had yet used. It was a sanction that required the co-operation of the connecting lines. It was successful for a short time only.

The West Shore filed bankruptcy proceedings in June, 1884.¹⁰³ Vanderbilt was in Europe, out of sorts with the railroad business and in no mood to buy up this competitor. Construction on the

⁹⁷ George H. Burgess and Miles C. Kennedy, *Centennial History of the Pennsylvania Railroad* (Philadelphia, 1949), pp. 408-412.

⁹⁸ Herbert L. Satterlee, *J. Pierpont Morgan* (New York, 1940), p. 220.

⁹⁹ Grodinsky, *Gould*, pp. 371-372.

¹⁰⁰ J.E.C., *Proceedings*, 1884, pp. 8-11.

¹⁰¹ *Evening Post*, Jan. 12, 1884. Reprinted in J.E.C., *Proceedings*, 1884, p. 23.

¹⁰² *Ibid.*, p. 30.

¹⁰³ Satterlee, *Morgan*, pp. 221-222.

South Pennsylvania was proceeding slowly. Speaking of a visit to the office of the Trunk Line Commissioner during this period, Charles Francis Adams, Jr., remarked, "It struck me as a somewhat funereal gathering. Those composing it were manifestly at their wits' ends. . . . Mr. Fink's great and costly organization was all in ruins and no one felt any faith in new experiments. . . . They reminded me of men in a boat in the swift water above the rapids of Niagara."¹⁰⁴ The rate war raged through the summer of 1884 and on into the following year.¹⁰⁵

Relief came during the summer of 1885. On board his yacht the *Corsair*, J. Pierpont Morgan conferred with Chauncey Depew, recently elected president of the New York Central, George B. Roberts, president of the Pennsylvania, and Frank Thompson, Robert's chief lieutenant.¹⁰⁶ Morgan volunteered his services, at the risk of his personal fortune as it turned out, to enable the Central to acquire the West Shore and the Pennsylvania to gain control of the South Pennsylvania. The latter part of this plan was never consummated although all work on the South Pennsylvania ceased, which was just as satisfactory to the Pennsylvania. Thus Morgan, the banker and investor, brought about railroad peace by consolidation. It was a kind of railroad "burden of empire" since neither the Central nor the Pennsylvania wanted the roads they acquired. Gould, the villain of the piece, sold out his eastern railroad holdings during the market rise occasioned by the rumors of peace negotiations.¹⁰⁷

A new Trunk Line Agreement was signed in November, 1885. It was hoped that its more stringent provisions would strengthen the system and make it permanent.¹⁰⁸ The addition of the signatures of three new member roads indicated, in part, the factors that had made the maintenance of rates so difficult, especially during the years 1884 and 1885. Building and consolidation of railroads was a continuing disruptive element.¹⁰⁹

On March 17, 1885, the Senate passed a resolution for the appointment of a select committee of five senators "to investigate and report upon the subject of the regulation of transportation by railroad

¹⁰⁴ *Report of the Senate Select Committee on Interstate Commerce*, 49th Cong., 1st Sess., Senate Report No. 46, Part 2 (Jan. 18, 1886), pp. 1,207-1,208. (This report is usually called the *Cullom Report*.) Quoted in Grodinsky, *Gould*, p. 504.

¹⁰⁵ *Cullom Report*, Part 2, p. 104.

¹⁰⁶ Satterlee, *Morgan*, pp. 223-227.

¹⁰⁷ Grodinsky, *Gould*, p. 508.

¹⁰⁸ T.L.A., *Proceedings*, 1885, pp. 70-73. The agreement and a description of the organization in *Cullom Report*, appendix pp. 237-244.

¹⁰⁹ Signers of the new agreement were the Grand Trunk of Canada, New York Central, Delaware, Lackawanna & Western, Erie, Pennsylvania, West Shore and Baltimore & Ohio.

and water routes."¹¹⁰ A committee was duly appointed, headed by Shelby M. Cullom of Illinois.¹¹¹ The five senators traveled from city to city throughout the country hearing testimony on all phases of the transportation problem. Most of the important figures interested in railroad reform appeared before the committee. The report and testimony of the Cullom Committee represent the last careful investigation of the subject prior to the passage of the Interstate Commerce Act.

Railroad pooling was not castigated by the experts. Simon Sterne, who at the time of the Hepburn Investigation had charged that pooling was not only a discriminatory device, but was illegal as well, testified in favor of pooling under government supervision.¹¹² Arthur Twining Hadley, author of a leading study on railway economics and later president of Yale, said that legalized pools would greatly increase the chance that they could be used as a power for good.¹¹³ Most contemporary students of the railway problem favored some form of pooling. To forbid pooling, warned Charles Francis Adams, Jr., former Massachusetts Railroad Commissioner, then president of the Union Pacific Railroad, would result in warfare and end by bankrupting most of the railroads in the country.¹¹⁴

As a result of his experience with the Hepburn Committee and subsequent events, Albert Fink greatly feared the influence of large shippers against railroad pooling. The testimony of Charles A. Pillsbury before the Cullom Committee illustrates the basis for his fear.¹¹⁵

Mr. Pillsbury. As far as our own business is concerned and I think I represent the millers and large shipping interests here [Minneapolis] — we have no complaints to make.

The Chairman. None whatever?

Mr. Pillsbury. None whatever. We think we are getting fully as low freights as the railroads can afford to take the goods for, *if not lower.* [Italics added]

Pillsbury was the spokesman for a virtually monopolistic organization of Minneapolis millers. Between 1875 and 1885 competition had nearly halved the railroad rates in this area.¹¹⁶ The millers were used to rebates. Through ownership of the grain elevators

¹¹⁰ Cullom Report, Part 1, p. 1.

¹¹¹ Other members were Orville H. Platt, Conn.; Arthur P. Gorman, Md.; W. Miller, N.Y.; and Isham G. Harris, Tenn.

¹¹² Cullom Report, Part 2, p. 72.

¹¹³ Ibid., p. 202.

¹¹⁴ Ibid., p. 1,204.

¹¹⁵ Ibid., p. 1,240.

¹¹⁶ Larson, *The Wheat Market*, p. 122.

along the various routes to their mills they controlled the marketing and shipment of grain.¹¹⁷ In the absence of pooling, Pillsbury and his group had the initiative in setting the rail rates. He told the committee that he felt "an effective pool would hurt the milling interests."

When Albert Fink came to testify before the Cullom Committee he no longer asked that the government legalize and regulate pooling. He noted that there had come to be a greater tendency to forbid the measures he favored than to aid the railroads in carrying them into effect.¹¹⁸ Railroad associations, he believed, ". . . were more in accordance with right and justice and with the institutions of the country than the measures which have been adopted in some of the States for the control of the railroads."¹¹⁹ He tried to dispel the bogey that pooling was for the purpose of bilking the public. "The laws of competition in making tariffs have unrestricted sway, pool or no pool, and are the surest safeguard against extortionate rates." At another point in his testimony he came back to the same theme. "The object of the pooling agreements is to enforce the agreed and published tariffs. They have nothing to do with the making of tariffs."

A major rate war was in progress at the time Fink testified before the Cullom Committee. The conference on board Morgan's *Cor-sair* had not taken place. The renewed and improved Trunk Line Agreement was a thing of the future. There were no significant glimmerings of peace to brighten the stormy railroad world. But Fink closed his remarks with an expression of faith in the ultimate success of reform through voluntary railroad associations:¹²⁰

It is . . . better to leave these matters in their present shape and let the roads fight it out as best they can for a while longer. It is a very expensive way of learning, but after the lesson is once learned, the institution will, perhaps, be more permanent than if based upon laws which are in advance of the intelligence and understanding of the people and, I may say, of the railroad men themselves.

• • •

The Cullom Committee did not "deem it prudent to recommend the prohibition of pooling" in its *Report* to the Senate. And in a spirit that characterized the attitude of the period toward social legislation, the committee did not recommend that pooling be

¹¹⁷ *Ibid.*, p. 147.

¹¹⁸ *Cullom Report*, Part 2, p. 126.

¹¹⁹ *Ibid.*, Part 2, p. 114.

¹²⁰ *Ibid.*, Part 2, p. 126.

legalized.¹²¹ Albert Fink might have believed that the committee had found his arguments convincing because the results were those he had sought. But in the negotiations between the Senate and House Committees on Commerce over the provisions of an act to regulate interstate commerce, the views of Representative Reagan prevailed and an antipooling clause was inserted.¹²² When the Interstate Commerce Act was finally passed in 1887, it brought an end to the pooling system. Twenty years later Senator Cullom remarked on pooling, "Whether it is right or wrong, I do not know even to this day."¹²³

Right or wrong, pooling was not a wholly satisfactory means of preventing excessive railroad competition. By outlawing pooling the government did deprive the railroads of a peacemaking device which had, at times, proved effective. But not all of Albert Fink's contributions to the organization of railroad peacemaking disappeared with the pooling system. His ideas and techniques for rate-making continued in the railroad associations and regional rate committees he created. Perhaps his most lasting contribution to railway reform was his systematizing of railroad thought through the use of statistics. Pooling was, after all, simply a device to create the conditions necessary to rationalize the rate system. Railroad tariffs are constructed in much the same manner today, and more in the scientific manner Fink advocated.

¹²¹ *Cullom Report*, Part 1, p. 201.

¹²² Shelby M. Cullom, *Fifty Years of Public Service* (Chicago, 1911), pp. 321-322.

¹²³ *Ibid.*, p. 322.



Wailuku, Island of Maui

Water Rights and Cabinet Shuffles

How Claus Spreckels' Hawaiian Career Began

Many Hawaiians viewed the great irrigation project and its vigorous promoter with enthusiasm and awe. Unfortunately, not all aspects of American entrepreneurship were palatable to the Islanders.

by Jacob Adler

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Uwe ka lani, ola ka honua

"The heavens weep, the earth lives."

Hawaiian proverb, motto of Honolulu Board of Water Supply

INTRODUCTORY NOTE

Claus Spreckels (1828-1908), a rich California sugar refiner, hurried to Hawaii in 1876 on the same ship that brought news of the Reciprocity Treaty with the United States. In effect, the treaty gave Hawaiian sugar planters a price increase of 2 cents a pound, and thus

set off an economic boom. Spreckels had originally opposed the treaty; but he quickly made up his mind to take advantage of it when it passed. On his first trip to the Hawaiian kingdom he explored the possibilities of starting a sugar plantation on the Island of Maui.¹

Through loans to Hawaiian King Kalakaua (who reigned from 1874 to 1891) and to the kingdom, Spreckels gained vast power in Hawaiian economics and politics. He established four links in a chain of control over the Island sugar industry:

(1) The Spreckelsville Plantation, largest in the Islands, and one of the largest cane sugar estates in the world.

(2) William G. Irwin and Company, a partnership of Spreckels and Irwin. In the 1880's and 1890's this was one of the leading sugar agencies in the Islands.

(3) The Oceanic Steamship Company, which dominated the transport of Hawaiian sugar in the last quarter of the nineteenth century.

(4) The California Sugar Refinery (later the Western Sugar Refinery) in San Francisco. This firm refined most Hawaiian sugar up to about 1905.

With his plantation, his sugar agency, his steamship line, and his refinery, Spreckels controlled Hawaiian sugar more completely than any man before or since his time. What follows is the story of how Spreckels launched his Hawaiian career.

• • •

Claus Spreckels knew that one of his main problems in starting a sugar plantation on the dry plains of Maui would be how to get water for irrigation. As he tried to solve this problem, his hand reached deep into the throne room and into the Hawaiian cabinet. The pulling and hauling over certain water rights on Maui marks Spreckels' first interference in Hawaiian politics for the attainment of economic goals, and the start of his rise to power in the kingdom.

The importance of water in sugar culture can best be understood from a simple fact: about two thousand pounds of water are needed to produce a pound of sugar.² In the Hawaiian Islands, the heaviest

¹ Spreckels was born in Lamstedt, Germany. After early years of comparative poverty, he became a part of that process by which some of the most energetic and resourceful persons in Europe reached America. He landed in Charleston, South Carolina, about 1847. Here, and later in New York, he achieved moderate success in the grocery business. In 1855, when the gold rush fever was still burning, he set out for San Francisco. He found "gold" in a grocery store, a brewery, and ultimately in sugar refining, the field in which he reached his greatest fame. By 1875 he was one of the leading refiners of the West Coast. Eventually he became known as the "sugar king" of California and Hawaii.

² *Sugar in Hawaii* (Honolulu: Hawaiian Sugar Planters' Association, 1949), p. 17.

rainfall occurs in the mountains, while in many lowland areas otherwise suitable for sugar growing the rainfall is not enough to assure a profitable yield. Of necessity, therefore, the Hawaiian sugar industry has pioneered large-scale irrigation. Ditches, flumes, aqueducts, mountain tunnels, and artesian wells have all played a role.³

In the few years before Spreckels first came to the Islands, many newspaper articles emphasized the importance of irrigation and called on the government to undertake it. This, said the *Pacific Commercial Advertiser*, would increase sugar production and exports. Irrigation would increase the value of government lands, and they could then be sold at a price that would amply repay the costs of getting water.⁴ Private enterprise, thought the editor, could not do the job. "Neither the capital for speculation, the public spirit and enterprise, nor the energy exist among us to undertake [irrigation] works. . . . Consequently if the Government refuses to move . . . it is clear that nobody else will move."⁵ Further, said the editor, government control of irrigation would avoid "the danger of a tyrannizing monopoly." He also called attention to the dry plains of Maui: "With water the change that would come over this now barren and worthless 'kula' [district] would be almost magical. It would convert the desert waste into productive lands, the seat of thriving industries, and add immensely to the wealth of the country at large."⁶

Despite the pessimism of the newspapers about the ability of private enterprise to get the irrigation job done, H. P. Baldwin and S. T. Alexander, Maui planters, obtained a government lease dated September 30, 1876, and began construction of the so-called Hamakua ditch. This was the first large irrigation project on Maui. When Spreckels arrived in Honolulu on August 24, 1876, his imagination may well have been stirred by the following account of this work:⁷

The energetic manager of Haiku Plantation, East Maui, will soon commence operation for digging a ditch to bring the waters of Haleakala down on to the cane fields. The route of the proposed ditch has been carefully surveyed and demonstrated to be perfectly feasible, and the amount of

³ In recent years the Hawaiian sugar industry has needed about 1,600,000,000 gallons of water a day. Much of this has been provided by investments of about \$50,000,000 in irrigation. Thrum's *Hawaiian Annual* for 1954 (Honolulu: *Star-Bulletin*, 1955), p. 42.

⁴ *Pacific Commercial Advertiser*, May 22, 1875.

⁵ *Pacific Commercial Advertiser*, June 5, 1875.

⁶ *Ibid.*

⁷ *Pacific Commercial Advertiser*, Aug. 26, 1876. Mention of the Reciprocity Treaty with the United States deserves further emphasis. When Spreckels was being interviewed in 1893 by Commissioner J. H. Blount, who had been sent by President Cleveland to investigate the overthrow of the monarchy, the sugar king indicated that the treaty had furnished the chief stimulus to irrigation projects. U. S. Congress, Senate, *Hawaiian Islands: Report of the Committee on Foreign Relations* (2 vols.; Washington: Government Printing Office, 1894), Vol. II (1782-1783).



water is surprisingly large, equal, as Mr. Alexander assures us, to the combined volume of Waihee, Wailuku and Waikapu [rivers]! The right of way and water will be granted by the government, which is all the aid he requires to complete the enterprise. Without the treaty, the bringing down of this water would be a "bonanza" to East Maui, but with the treaty — it simply assures a magnificent near future for the planters of that region.

Just two days after this article appeared, Spreckels left Honolulu to spend several days on Maui. He explored the undeveloped land and water resources of the Island. S. T. Alexander pointed out to him that the central plains needed only water to produce abundant sugar crops.⁸ Spreckels later claimed it was at this time that he got the idea for his own ditch, and that immediately on return to San Francisco, in September, 1876, he consulted Hermann Schussler, a well-known California irrigation engineer, about the project.⁹ More than a year went by, however, before Spreckels returned to Maui.

There was much talk of another ditch in the same area even before the Hamakua ditch was finished. Reported the *Advertiser*:

⁸ W. D. Alexander, *History of Later Years of the Hawaiian Monarchy* (Honolulu, 1896), p. 3; *Directory of the Hawaiian Kingdom, 1880-1881* (San Francisco, 1881), p. 506.

⁹ *Pacific Commercial Advertiser*, Oct. 12, 1878.

"[It is said] that the Royal Commissioners will approve of another water-way, *makai* [seaward] of the present ditch, by which they hope to lay many acres on the plain under water."¹⁰ Reports of drought early in 1878 gave dramatic emphasis to the need for more irrigation, though such need was already well understood. The dry spell was a common topic of conversation, with generally depressing effect. "Should we not have copious showers of rain, and that shortly, too," lamented the *Hawaiian Gazette*, "the result will doubtless be disastrous."¹¹ The drought broke in late April, 1878, but not before widespread damage had been done to the crops.¹²

Only a few weeks before Spreckels returned to Maui in May, 1878, a writer in the *Advertiser*, without any apparent foreknowledge of Spreckels' plans, made a prophetic statement. He noted that sugar is a soil-exhausting crop, and that before long the planters would be compelled to seek new lands. He called attention to the rich lands of the Wailuku Commons in central Maui: "By proper engineering works the surplus waters of the valleys which now run to waste in the sea could be made to irrigate the entire 'commons' and raise thereon enormous crops of cane. And it will surely be done some day."¹³

SURVEY ON MAUI

As this statement appeared Spreckels and his engineer, Schussler, were preparing to leave San Francisco to make the prophecy a reality. After arrival in Honolulu in late May, 1878, they went to Maui to study a plan for bringing water from the northern slopes of Mount Haleakala (house of the sun) to the plains of the Wailuku and Waikapu Commons. They looked over the site of the proposed ditch, examined the streams to be tapped, and determined the general mode of operations.

Schussler organized a survey party, including an engineering assistant, eight natives, a Japanese cook, and a mule driver. The natives carried the chains and stakes, and other surveying equipment; the cook and driver looked after the tent and camping supplies. Plodding along mountain trails overhung with tropical shrubbery, the party first surveyed the area near the headwaters of the proposed ditch. Schussler determined the probable course of the

¹⁰ *Pacific Commercial Advertiser*, April 7, 1877.

¹¹ *Hawaiian Gazette*, March 27, 1878.

¹² *Pacific Commercial Advertiser*, May 4, 1878; *Hawaiian Gazette*, May 8, 1878.

¹³ *Pacific Commercial Advertiser*, May 4, 1878. The Wailuku Commons was at a greater distance from Mount Haleakala than the area to be irrigated by the Hamakua ditch of Baldwin and Alexander.

waterway, sizes and strength of piping to be used, and the character of the soil at various points, especially its capacity for carrying water without too much seepage. He also estimated the cost of the work which would extend some 30 miles, intersecting many ravines and gulches. Although much of the terrain was rugged, Schussler completed the survey in about two weeks. He also made a topographical map of the area to be irrigated, planning the ditch so it would run along the upper edge of the land. Thus maximum use could be made of gravity, eliminating the need for pumps.¹⁴

Now Spreckels had a plan for his project, but two chief obstacles were still in the way. He owned no sugar land on Maui. He owned no water rights. The first of these problems Spreckels solved by buying an undivided half-interest in 16,000 acres of the Waikapu Commons from Henry Cornwell, and by leasing from the government, at \$1,000 a year, 24,000 acres of crown lands on the Wailuku Commons.¹⁵ The problem of the water rights proved slightly more difficult.

DOWNFALL OF THE MOTT SMITH MINISTRY

On June 24, 1878, Spreckels presented a petition to the king and the ministry, requesting the desired water rights at \$500 a year "in consideration of the great and manifold advantages that will accrue to said [Hawaiian] government by the construction of a large and extensive system of irrigation works on the Island of Maui, whereby a large district now laying waste will be brought to a high state of cultivation."¹⁶ The ministry did not immediately grant the rights, but accepted the petition for consideration. On the same day Walter Murray Gibson, then a member of the legislature, brought in a motion of lack of confidence in the ministry.¹⁷ This was defeated, 26 to 19.¹⁸

Spreckels was not a man to put up with delay. On the night of July 1, he, King Kalakaua, and several other persons met at a hotel. About two o'clock in the morning the king sent a messenger to rout the ministers from their beds and notify them they were dismissed. The editor of the *Gazette* expressed the general mysti-

¹⁴ *Pacific Commercial Advertiser*, Oct. 12, 1878.

¹⁵ Lease of Wailuku crown lands to Claus Spreckels by Commissioners of Crown Lands, effective July 1, 1878, book 55, pp. 196-200; book 57, pp. 299-304. Bureau of Conveyances, Honolulu.

¹⁶ Copy of the petition is in file "Water - Maui - Molokai - Sundries, 1866-1885," Archives of Hawaii.

¹⁷ Gibson became premier in 1882. He held so many offices that he became known as "minister of everything." Gibson, Spreckels, and King Kalakaua formed a triumvirate which controlled the government to about the middle of 1886.

¹⁸ Spreckels' attempt to get the water rights may have been a factor in the motion of lack of confidence. However, there had been much friction on other matters between ministry and legislature, and ministry and king.



King David Kalakaun
Courtesy Archives of Hawaii

fication over the dismissal of the cabinet: "We do not for a moment question the right . . . of His Majesty to change the Ministry as and when he pleases, and no doubt the reasons which moved the King to act with decision and promptness were sufficiently strong and controlling in their character to justify his action. What those reasons were, we are not only ignorant of, but under and in view of the circumstances, at a loss to conjecture."¹⁹

The new cabinet was made up as follows:²⁰

S. G. Wilder, Minister of the Interior, vice J. Mott Smith.

J. M. Kapena, Minister of Foreign Relations, vice H. A. Peirce.

¹⁹ *Hawaiian Gazette*, July 10, 1878.

²⁰ *Hawaiian Gazette*, July 3, 1878.



Claus Spreckels

S. K. Kaai, Minister of Finance, vice J. M. Kapena.

Edward Preston, Attorney General, vice A. S. Hartwell.

On July 8 this cabinet granted Spreckels the desired water rights.

Of the change in the cabinet James H. Wodehouse, British commissioner in Hawaii, wrote to the Foreign Office: "The Ministers declare that their overthrow was caused by a great Californian [*sic*] capitalist, but I cannot say how much truth there is in this statement."²¹ James M. Comly, United States Minister resident, reported as follows to the Secretary of State:²²

Meantime, the various assaults upon the Ministry culminated in a sudden decision by the King to rudely and uncereemoniously dismiss the whole

²¹ Wodehouse to "My Lord," July 8, 1878. FO 58/162, pp. 78, 79, British Public Records Office. (On microfilm, University of Hawaii Library, Honolulu.)

²² Comly to Secretary of State, No. 43, July 8, 1878. Dispatches from U. S. Ministers in Hawaii, National Archives. (On microfilm, University of Hawaii Library, Honolulu.)

of them. According [sic] messengers were sent . . . with peremptory orders to the Ministry to hand in all their resignations the next morning early. I have been told by the Ministers themselves that the order was couched in most insulting terms. . . . The action of the King was totally unexpected by all parties. Various explanations are offered for the extraordinary haste requiring the use of messengers at the dead of night. . . . One thing is known, however: The King spent the evening up to about 11 or 12 o'clock with Claus Spreckels and Wm. H. Dimond. . . . Dimond [a San Francisco sugar broker and commission agent] is a confidential agent of the Pacific Mail S. S. Co., and is here to secure an enlargement . . . of the subsidy now paid to that Company. . . . What influences were brought to bear on His Majesty by Spreckels and Dimond is not known; but after spending the time in their company until about midnight, His Majesty reached such an elevation that he dismissed his Ministers.

On the same day that the lease granting the water rights was signed, S. K. Kaai, newly appointed minister of finance, spoke to a meeting of native Hawaiians at Kaumakapili church. The theme of the meeting turned out to be: *E mahalo i ka ona miliona* (Let us give thanks to the multimillionaire). The meeting passed resolutions thanking Spreckels for his investments in Hawaii, and thanking the king for appointing two native Hawaiians to the ministry. A writer to the editor of the *Gazette* commented:²³

It was thought by the promoters of the meeting that it was best to publicly thank Mr. C. Spreckels for his noble and magnanimous conduct during his late visit to Honolulu. Possibly it appeared to the native mind that a speculation — which has in it somewhat of a savor of monopoly — was a disinterested investment of money in these Islands for the benefit of the nation; that it exhibited a benevolence which should call forth the admiration of all classes — from the highest to the lowest. Perhaps it was wise to praise the power of money, and to inculcate its worship as a worthy public sentiment; but its introduction into politics as an element of discussion is certainly not wise. Hitherto the Hawaiians have been free from its influence, and happy will it be for them if they never have to contend with its subversive power.

This meeting was probably designed to promote public acceptance of Spreckels. Kaai may also have felt the need to justify the cabinet's grant of water rights to Spreckels for what must have seemed to the public a small annual consideration. Water rights have always been important in Hawaii: the native word for "wealth" is *waiwai*, literally "water-water." Even before the coming of the *haole* (white foreigner) such rights were subject to a complex system of regulation, remnants of which still survive.

²³ *Hawaiian Gazette*, July 17, 1878. Letter signed "Hawaii." For a first-hand report of the meeting at Kaumakapili church, see *Ko Hawaii Pae Aina* (Hawaiian language newspaper), July 13, 1878. Report signed by C. P. Iaukea who was secretary of the meeting.

Rumors of a "payoff" by Spreckels soon began to fill the air. In October, 1878, the *Advertiser* cited parts of an article that had appeared in the *Alta California*, on September 5. Because of the Reciprocity Treaty, said the article, many new investments were being made in sugar. The Hawaiians were delighted with the boldness of American capitalists, and Californians could readily adapt themselves to circumstances. A "certain high personage" (King Kalakaua) in Hawaii had become involved in debts which it was not convenient to pay. "This knot was dexterously cut by a California capitalist [Spreckels] who begged . . . to take the loan at a less [*sic*] rate of interest. . . . The interests of the capitalist have not suffered by his adroit stroke of finesse."²⁴

As one might suspect from the above account, much had been going on behind the scenes. King Kalakaua's cash book and letters of C. C. Harris, chief justice of the Hawaiian supreme court, to Elisha H. Allen, Hawaiian minister at Washington, throw additional light on what took place. The king's cash book, kept by his chamberlain, contains the following entry:²⁵

Bills Payable

Amt 4 Notes dated July 8th 1878 given by His Majesty favor of Claus Spreckels for \$10,000 each at 2, 3, 4, & 5 years with int. at 7 per cent per annum payable semi-annually and secured by net receipts of Crown lands. [(\$)40,000

The date of these notes is the same as that of Spreckels' lease of the Maui water rights.

If any further mystery exists about what happened, it is dispelled by Harris's account to Allen:²⁶

On Spreckels' arrival he had been "greatly entertained" by the king. As far as the request for water rights was concerned, the cabinet dismissed on July 1, 1878, was not averse to granting whatever it could legally grant. A. S. Hartwell, however, the subsequently deposed attorney general, was of a cautious turn of mind. He drafted the lease, went over it with Spreckels and Schussler, and then redrafted it several times. Chief Justice Harris was also consulted, and he seemed to understand what was wanted. Spreckels then heard rumors that certain sugar interests on Maui would oppose his lease. Harris told Hartwell he would go to see Spreckels and Schussler, and draw up the paper himself. While Harris was

²⁴ *Pacific Commercial Advertiser*, Oct. 5, 1878, citing portions of an article in the *Alta California*, Sept. 5, 1878.

²⁵ Kalakaua Cash Book, Archives of Hawaii, p. 51.

²⁶ C. C. Harris to E. H. Allen, Oct. 4, 1878. "Elisha H. Allen Papers," Library of Congress. (On microfilm, University of Hawaii Library, Honolulu.)

talking to Hartwell, the latter received a note by messenger from King Kalakaua saying that "he hoped the matter would be attended to as his [the king's] interest was suffering."

Harris, the account continues, went to Schussler's room at the hotel and found King Kalakaua, Sam Parker, W. H. Dimond, Spreckels, and Schussler, all drinking champagne.²⁷ They invited Harris to take a drink, but he declined because the room was crowded and warm. He told Schussler that he would help him draft the lease, and then he returned to his own room. Since Schussler did not come to his (Harris's) room, Harris went back at nine o'clock and again at eleven, but did not go into the room because the king was still there. Next morning Mott Smith showed Harris the note requesting his (Mott Smith's) resignation, which he had been roused from his bed to receive. Then, Harris relates: ²⁸

I immediately sent for Schutzler [sic] & Spreckles [sic] to their several rooms & taxed them with it. They said they had not done it & I answered, you have done it by finding unnecessary fault & reporting to the King statements which enemys [sic] have made & have not told him what I told you Mr. Schutzler last night. Besides you have offered the King pecuniary considerations, & then alarmed him by telling him you would withdraw from the enterprise. They asked me how I knew that? I answered: I guessed at it; because that is the way you talked to me yesterday, & you talked to the King the same way, & I know that because the King's action has followed directly upon his leaving your room.

The fact was that the King went immediately to Preston's and got him out of bed, & told him he was going to appoint him Attorney General, & sent a note to Green. Schutzler & Spreckles replied to me, we are only defending our own interests, I said & it is the first time money has been used in this country to procure official favors, and now with the King. You have injured our pride & done damage to those who are doing good to you, & who have spent an immensity of time & trouble in bringing your plan into shape, & who didn't want, & couldn't be induced to take a dollar of your money. They denied that they had used pecuniary considerations. I replied to them, gentlemen, will you undertake to deny me that you have promised the King a gift of \$10,000 & a loan of \$40,000 at 7% — holding out in my hand a Note of the King's in which he said that Mr. S had offered him to lend him \$40,000 at 7%, to pay some Notes which were then running at 12%. Of course there was nothing that could be said. The \$10,000 has since arrived and been received by the King, by Draft on the California Bank on Bishop & Co.

Next morning C. R. Bishop (a banker, and husband of Bernice Pauahi Paki, a high chieftess) went to the king, and tried to reason

²⁷ Parker was a Honolulu businessman and landowner. He was a poker-playing companion of Spreckels and King Kalakaua and was friendly to Spreckels throughout the latter's Hawaiian career.

²⁸ Harris to Allen, Oct. 4, 1878.

with him about the cabinet dismissal. Bishop urged Kalakaua to confer again with Harris, but the king's mind was made up and he would not listen.²⁹ Increasingly thereafter, Kalakaua and the "palace party" were to be at odds with the more conservative element in the Honolulu community.

Thus using political influence to serve his economic ambitions, Spreckels began his rise to power in the kingdom. His money had begun to play a role in Hawaiian politics, and it was to be an important factor for some eight years. Not only were there loans to the king and later to the kingdom, but also, according to the Harris account above, "gifts" of money to the king.

SEQUEL TO THE \$40,000 LOAN

Of the four notes for \$10,000 each given to Spreckels by King Kalakaua, presumably the first was paid when it fell due (July, 1880). In discussing assumption of the balance of the loan by the government, the 1880 legislature mentioned a figure of \$30,000. On August 5, L. Aholo, a Hawaiian member of the legislature, introduced a resolution that:³⁰

The Minister of Finance be authorized to pay to the Commissioners of Crown Lands the sum of Thirty Thousand Dollars for the purpose of cancelling certain notes of His Majesty now held by Capitalists, the money to be returned by said Commissioners into the Treasury with interest thereon at a rate not to exceed five per cent per annum, by payments from time to time of one fourth of the income of said lands.

Just who was behind this resolution by Aholo is not clear, but it is doubtful that he would have dared to introduce it without King Kalakaua's consent. Aholo said only that he thought "this was a thing that ought to be done," and therefore he had brought it in.³¹

Godfrey Rhodes said this was "a very extraordinary bill . . . to be brought before the Assembly. . . . It appears to be part of the \$40,000 for which the last Ministry went out of office."³² He also said the king could not be sued, and those who had made loans to him should just wait until he was able to repay them. Attorney General Preston said that the crown lands could not be legally encumbered in any way. All other cabinet members pleaded ignorance of the background of Aholo's resolution. Gibson said that, as the matter concerned the person of the sovereign, it should have originated with the "constitutional advisers of the King" (the minis-

²⁹ Harris to Allen, undated, but probably written in July, 1878. "Allen Papers."

³⁰ "Journal of Legislative Assembly, 1880," p. 264. Archives of Hawaii.

³¹ *Pacific Commercial Advertiser*, Aug. 7, 1880.

³² *Ibid.*

ters), and should not, therefore, have been brought in by other members of the legislature. After some further debate, the assembly referred the resolution to a special committee.³³ The *Gazette* commented: "It is bad enough that the formation and existence of such debts are known unofficially, without parading the matter before the world."³⁴

While the resolution was still in committee, the *Gazette* also remarked about the proposed taking over of the debt by the government: "It may as well be said at once and to the point, that there is only one opinion among the public, and that is stern condemnation."³⁵ The majority report of the committee, nevertheless, recommended adoption of a resolution differing only slightly from that brought in by Aholo.³⁶ A. S. Cleghorn, a noble of the kingdom, favored adoption of the majority report. He was "opposed to His Majesty being under any obligation to anyone out of the country," and it was advisable that all such matters be in the hands of the government. He also said he had "no objection to Mr. Spreckels, he is a gentleman who is doing a great deal of good for the country, but it would be better if he were paid off and the notes thereby redeemed."³⁷ As precedent for paying the king's debts, Gibson cited a case in which the government of Great Britain had assumed \$2,000,000 in debts of King George IV. The legislature then rejected, by a vote of 30 to 6, a motion to postpone acceptance of the majority report, and adopted both the report and the resolution.³⁸

The loan by Spreckels to the king, about which many rumors had circulated, thus became a matter of public record. Assumption of the debt by the kingdom, even though repayment was to be made by King Kalakaua out of the income of the crown lands, was disturbing to those in the community who wanted economy in government. Wrote the editor of the *Gazette*: "So the country is to be saddled with the payment of that \$30,000 after all. Dear country, won't you pay our private debts too?"³⁹

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With the water rights obtained coincidentally with the loan discussed above, Spreckels built the largest irrigation project that had

³³ *Ibid.*

³⁴ *Hawaiian Gazette*, Aug. 11, 1880.

³⁵ *Ibid.*

³⁶ "Journal of Legislative Assembly, 1880," pp. 285-286.

³⁷ *Pacific Commercial Advertiser*, Aug. 14, 1880.

³⁸ *Ibid.*

³⁹ *Hawaiian Gazette*, Aug. 18, 1880. The \$30,000 advanced to the Commissioners of Crown Lands was eventually returned to the treasury in full. *Pacific Commercial Advertiser*, June 14, 1884.

Honolulu July 1878		51
Cash	Sundries 41,74.57	44754.57
And following rents		
Land Rents		
7. Miller & Co	200.	
J. Spencer	30.	
J. Spencer	163.17.	
P. Sinclair	262.50	
Land on Maui	71.50	
Reanas	120.	
Kaialua	100.	
J. McBelgan	50.	
A. J. Rose	227.50	1730.37
6. Bills Payable		
And 2 notes dated July 5 & 1878 given by His Majesty favor of Claus Spreckels for 2000 each at 2, 3, 4, & 5 years with int. at 7 per cent per annum payable semi-annually and secured by mortgage of Crown lands		
		40000

Page from King Kalakaua's Cash Book
Showing Spreckels' Loan

Courtesy Archives of Hawaii

ever been undertaken in the Hawaiian Islands. The ditch was 30 miles long, cost about \$500,000, and delivered about 60,000,000 gallons of water a day. The Spreckels work was the best demonstration at the time that large-scale irrigation in the Hawaiian sugar industry was both feasible and profitable. The ditch made possible the Spreckelsville plantation, the largest in the Islands. To Spreckels' enterprise and example Maui owed much of its wealth. The central plains became a region of tall cane. Moreover, since sugar was the backbone of the Hawaiian economy, the ditch contributed to the economic progress of the entire kingdom. Trade with San Francisco was stimulated, because sugar was the chief export. Spreckels' enterprise resulted in increased employment and increased government revenues. It set an example for others, inspired business optimism, and attracted additional capital.



A Michigan Lumbering Family

¶ The bonanza lure of lumbering proved irresistible to many established small businessmen, who were dazzled by the prospects of cheap raw materials and simple processing, on the one hand, and by growing markets on the other. Disillusionment was frequent, but amidst crushing difficulties created by inexperience and inadequate capital the small operator proved remarkably ingenious and persistent. His often ill-rewarded and seemingly unjustified ventures contributed much to the economic growth of the nation.

by Ruth B. Bordin

ASSISTANT CURATOR
MICHIGAN HISTORICAL COLLECTIONS
AT UNIVERSITY OF MICHIGAN

This is a study of Michigan lumbering in microcosm. In 1853 a man named Gideon Olin Whittemore, together with two associates, bought a tract of pine lands at what was then known as Ottawas Bay on Lake Huron. In the process of lumbering those lands and milling and marketing the white pine timber they produced, Whittemore incidentally founded a town now known as Tawas City, Michigan. The whole business was a small operation. Whittemore was no rival of lumbermen Peter

White, Isaac Staples, or Henry Howland Crapo. He dealt in small quantities in terms of capital, acreage, thousands of board feet and all the rest. But his problems were much the same as those of the lumber titans of mid-nineteenth-century America. The immediate purpose of this study is to illustrate the nature of those problems as they manifested themselves in a particular situation. But the Whittemore case study can have broader implications in that it probably points to behavior patterns typical of small business generally at that time.

Whittemore, like his better known contemporary, Crapo, was successful, middle-aged, and probably restless when he embarked on the venture that made the earlier part of his life look like a Sunday School picnic. He had been a prominent lawyer, judge, farmer. He had been a member of the Board of Regents of the University of Michigan, the State Board of Education, and Secretary of State in the Felch administration. His children were grown, if not all well-established. There was no good reason why he could not live out his comfortable, relatively uneventful life in the comparative peace and quiet of Pontiac where he had made his home for almost thirty years. Perhaps the current fever of making a fortune in pine lands tempted him; perhaps he was looking for a challenging outlet for sons who had not yet settled down; perhaps he was weary of an ailing, somewhat nagging wife and wanted to have a valid excuse for prolonged absences from home. Whatever the reason, he left peace and stability behind him, and involved himself body, soul, and entire family fortune in that fascinating speculative nineteenth-century game of lumbering, where one set out to make a fortune, usually lost one's shirt and, sometimes, made the whole thing work.

Whittemore made an exploratory visit to the bay area in the summer of 1853, landing at the lighthouse completed on Ottawas Point the previous year. Captain Colin Graham and his family who tended the light were the only inhabitants of the area except for two trappers who lived nearby.¹ Nonetheless, this isolated uninhabited wilderness, for there was no real settlement on the whole Lake Huron shore between Bay City and Mackinac, must have looked promising, for Whittemore proceeded to execute his plans for a lumber operation on Ottawas Bay, purchasing 5,300 acres of land at \$1.25 per acre with a mile of frontage on the bay and including the mouth of the Tawas River. Additional purchases of smaller

¹ *History of the Lake Huron Shore* (Chicago, 1883), p. 134.

tracts in the area were made from time to time during the next decade.

The financing of Whittemore's entrepreneurial schemes was complicated almost from the very first and became increasingly tortuous as the years went on. The initial capitalization of the Whittemore enterprise was \$18,000, of which equal shares were held by three partners. James Covert of Albany, and Whittemore's daughter, Harriet, were his original partners.² Harriet was married to A. B. Mathews, well-established miller and produce broker of Pontiac, Michigan. Mathews was heavily involved in the Tawas operation from the beginning, despite his oft-repeated complaint that his only promise had been to provide in his wife Harriet's name a share of the original capital investment. Actually for ten long and difficult years he acted as the company's agent for the purchase of supplies and equipment and the hiring of hands. From 1855 on, he struggled and sweated to find a profitable market for the lumber, corresponded with jobbers and brokers, arranged transportation, and made an occasional trip to Chicago or Albany in quest of buyers or more favorable terms. Although his original investment was made in his wife's name, he personally carried the firm, year after year, to the extent of thousands of dollars, neglecting his own business, borrowing money at usurious rates of interest on his own signature, mortgaging and, on one occasion, almost losing his entire Pontiac property in the process.

Mathews did not perform these services without complaint. Although he went rarely to Tawas, and not at all in the first years, he carried on a voluminous correspondence with members of the family, particularly James Whittemore, who usually supervised operations at the bay during his father's frequent absences. In his letters to James, Mathews complained, cajoled, and threatened. He painted the direst pictures of his own and the firm's financial predicaments. He accused the Whittemore brothers of mismanagement. He threatened to withdraw his support. But always each fall, as he complained about the losses of the season just passed, he borrowed, begged or mortgaged to find the money to supply Tawas once more, hoping anew for that highly profitable season that would make the sacrifice worthwhile.

The journal of work for 1854, which was kept in a most methodical fashion by G. O. Whittemore, shows in detail the large expenditure of labor and capital necessary before a single dollar could be

² Letter, June 28, 1854, G. O. Whittemore to James Whittemore, in the Whittemore Papers, Michigan Historical Collections, at the University of Michigan in Ann Arbor, hereafter cited as the Whittemore Papers.

realized on a lumbering investment. The situation in which the Whittemores found themselves was, of course, far from unique. The problem was the same for all lumbering operations. There was always a full year in the lumbering cycle before any cash could be realized even in established businesses, and the element of risk was always high. Camps had to be built anew for almost every season, marsh hay cut for the horses, a full winter's logging undertaken, and the lumber gotten out of the woods to the mills in the spring. All this had to be done with only a guess as to what the next summer's prices would be on a commodity with highly fluctuating prices and before a single dollar was returned from the sale of logs or lumber.

The Whittemores' problem was even more complicated. Transportation costs always loomed large in computing profit or loss in lumbering ventures. Lumber was a cheap but very bulky product for which the sources of supply were far from the primary consuming markets. However, in the 1850's in the Flint and Saginaw area in lower Michigan, for example, there was at least a growing local market. Settlers were moving in and railroads were beginning to penetrate the area. There were no roads and no settlers in the Tawas region where the Whittemores set up their mill, nor were there to be any for several years. Hence there was absolutely no local market for their lumber. At the same time all their supplies had to be brought in by steamer, except for brief periods during the winter freeze when teams could be sent overland from Pontiac.

Nothing was obtainable locally. For the buildings erected that first summer before the mill was in operation, lumber itself had to be shipped in, and it was many years before Tawas became completely independent of lower Michigan for hay and feed for its draft animals. At the same time, the Whittemores either had to find a buyer willing to take their lumber on the dock at Tawas — usually sight unseen and at an unsatisfactory price — or arrange to send it to brokers in Chicago or Buffalo for sale, where again they were at the mercy of others in a much better position to take advantage of the market, and where they had to pay transportation costs that typically absorbed almost a third of their gross. For example, in 1859 they sold a cargo in Albany for \$3,221, of which \$904 were freight charges alone.

At the beginning, however, all was hope and optimism. Mathews was as yet unaware of the demanding role he was to play, and Whittemore was blissfully ignorant of many of his future problems and full of enthusiasm for the new venture that lay before him. On

July 1, 1854, the steamer Huron approached the point on Ottawas Bay that was later to become Tawas City and discharged its cargo of 15 men, 2 yoke of oxen, and the first summer's supplies.³ Preliminary operations were under way.

The men began to build a shanty, get stone, dig a well, and cut timber for the mill supports, as well as harvest marsh hay for the draft animals. They began to clear the lower stretches of the river of the accumulated debris of decades, so that logs could eventually be floated down it, an operation that was to continue over several years as logging activities moved inland. Men were set to work making shingles for the buildings and digging a coal pit for the future boiler's fuel. In September they erected a boardinghouse to replace the shanty as housing for their hands, and in October they got stone for the enginehouse and storehouse, and provided a few comforts as they made tables, bedsteads, doors, and windows.

In November their attention was largely focused on the mill and its equipment. The Whittemore company had contracted with the Detroit Locomotive Works in July for a steam engine, boiler, and mill irons, to be built to their specifications at a cost of \$5,328 and delivered in 90 days.⁴ From the journal of work it would seem that delivery was made in November. There was still no dock on the bay and the boilers had to be plugged, tossed overboard, and poled to shore. How the engine was landed is not indicated in the papers, but probably it was brought in on either a raft or a good-sized dinghy. The workmen were occupied with setting up the engine and boilers and finishing work on the buildings throughout December, when they also began to cut a road to Sand Point. Six months of hard work had gone by and, of course, no logging had been undertaken as yet.

From October 1 to January 1, \$7,367.81 had been expended. As Mrs. Whittemore complained, "Tis money out. But *out* all the time, and of necessity must be so."⁵ Total costs for the earlier months are not available, but they included a substantial downpayment on the engine, payment for lands, and large quantities of supplies. In a letter to James Whittemore dated June 28, 1854, G. O. Whittemore stated that the original capital investment totaled \$18,000. Presumably by October most of this had been spent because the company already was badly in need of additional funds;

³ Journal of work, 1854, Whittemore Papers.

⁴ Specifications for engine, July 20, 1854, Whittemore Papers.

⁵ Letter, March 17, 1855, Mrs. G. O. Whittemore to James Whittemore, Whittemore Papers.

the manipulations which somehow staved off bankruptcy during the next 12 years had already begun.

James Covert withdrew from the partnership at this time, for reasons unknown. Perhaps he felt the risk was too great and that the involvement would become too heavy. However, no cash settlement was made with him. Rather, he was given a mortgage on part of the firm's lands. Robert Higham became the new partner and brought an additional \$2,500 of working capital into the firm.⁶ Higham remained a partner until April, 1856, when he sold his interest to Whittemore and Harriet Mathews for \$7,000, payable in three years. Since the firm defaulted on this obligation, like many others, Higham found severing his connection with Whittemore and Company not quite so simple in the end. The Michigan Insurance Company Bank of Detroit through its cashier, Henry K. Sanger, also entered the financial picture, in October of 1854, as holder of a mortgage on 2,600 acres of Whittemore's pine lands. The bank's mortgage was to be a factor for many years, and clear title to the property passed to the Whittemores only after Gideon's death, following many and complicated manipulations and crises. October of 1854 was just the beginning. Nonetheless, even with new sources of capital and new mortgages, the partners were able to pay only \$176 on the second installment of the engine when it fell due in October and had to sign a promissory note for the remaining \$1,776. When this fell due a year later, payment was refused.

By January of 1855 logging operations were finally under way. That first season it was possible to cut close to the settlement where logs were relatively easy to get to the mill. Gideon Whittemore returned to his Pontiac home during the coldest winter months, leaving his son James, aided by his younger brother, Charles Whittemore, in charge at the Bay. James wrote to his father that by the end of January they would have hauled enough logs to make 500,000 feet of lumber when sawed. An experiment with starting the engine, in the hope they could at least saw enough lumber to enclose the mill, only resulted in a cracked cylinder, and all attempts to run the mill until the weather moderated were abandoned.⁷

Spring found them with a substantial supply of logs on hand, the mill operating well, and an agreement with Benjamin Brewster and Company, Chicago lumber merchants, to take all the lumber they could ship, 2,000,000 board feet including lath and pickets.⁸ During

⁶ Agreement of partnership, Oct. 11, 1854, Whittemore Papers.

⁷ Letter, Jan. 23, 1855, James Whittemore to Gideon Whittemore, Whittemore Papers.

⁸ Agreement, April 11, 1855, between Gideon Whittemore and Brewster and Company, Whittemore Papers.



In the Pine Forests

the early summer their most important project was the building of a dock, badly needed to expedite the loading of lumber and unloading of supplies.⁹ Whittemore's dock, with its later additions and improvements, remained the principal dock of Tawas City for many years. Another major improvement begun that summer was the building of the so-called railroad, used for hauling logs. Its tracks were made of hard maple ribbands sawed at Tawas, and by June it had been completed as far as Dead Creek.¹⁰ Additions were made to the track from time to time as logging operations moved farther into the interior.

⁹ Letters, June 23 and July 14, 1855, James Whittemore to Gideon Whittemore, Whittemore Papers.

¹⁰ Letter, June 23, 1855, James Whittemore to Gideon Whittemore, Whittemore Papers.



Loggers' Camp

Essentially the plant was now complete. Mill and enginehouse, bunkhouse, store, dock and the first logging roads into the interior had all been built in the course of the first year. Although county organization was not completed until 1857, the village of Tawas was surveyed and platted that summer of 1855.¹¹ The Whittemores were beginning to see the development of Ottawas Bay as more

¹¹ Perry F. Powers, *A History of Northern Michigan and Its People* (Chicago, 1912), Vol. I, p. 515.

than a pinery. They were looking ahead to a permanent settlement with a broader economic base resting on agriculture, although over ten years were to pass before this became a reality.

From the beginning, the Whittemores ran what is known in lumbering terminology as an integrated operation. They owned the land, hired the crews, and did their own logging (except for the first winter when they had two men operating teams on commission), hauled the timber to the mill, cut the lumber, shingles, and lath, and arranged for its sale to jobbers in Chicago or in the East. They also owned the only store in Tawas and managed to pay a good deal of their men's wages in goods on which they made a profit. They almost completely controlled local government as soon as Iosco County was organized in 1857, holding most of the county and township offices. When a postoffice was opened in 1856, the first between Bay City and Mackinac, James became the first postmaster and the office remained in his house until 1874.¹² The whole community was under the Whittemores' control. Nonetheless, theirs is a story of unrelenting struggle and almost constant near-bankruptcy.

The first financial crisis came in October of 1854 and has already been described. For the next two years logging, milling, and marketing all went along fairly well, although the company showed no profit. It was in 1857 that the Whittemores' troubles really began. The panic of that year made itself felt in late summer and fall in the form of general hard times and rapidly falling lumber prices. But matters did not come to a head until late 1858 and early 1859, when Sanger began to press the Insurance Company Bank claim. Mathews' business had suffered greatly and he personally was very short of money. Lumber prices were extremely depressed. Fluctuation was normal, but the price range from 1854 to 1857 had been \$11 to \$18 per thousand. In the summer of 1859, one Whittemore cargo brought only \$6.75 delivered in Chicago.¹³

The mild winter of 1858-1859, when there was no snow at Tawas even in January, did not help the situation, and the crisis deepened. The mortgage on the Whittemore homestead in Pontiac was about to be foreclosed.¹⁴ The firm was seriously in default in meeting payments on the mortgage held by Covert, but foreclosure did not seem as likely there for they believed that Covert probably did not really want the property. The defaulting on the Insurance Com-

¹² *History of the Lake Huron Shore*, p. 137.

¹³ Letter, July 15, 1858, Gideon Whittemore to James Whittemore, Whittemore Papers.

¹⁴ Letter, Jan. 28, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

pany Bank mortgage held on their other lands and on the mill property itself was a much more dangerous problem, and the bank was pressing its claims.¹⁵ Suits were also being started on other outstanding notes.¹⁶

Mathews himself was in serious trouble. He had used (to stock Tawas during the fall and winter) over \$1,700 given him to buy wheat for them by Bridge and Lewis, Detroit produce brokers. He now had to buy wheat to cover this misuse of their funds, or face the utter ruin of his business reputation, and he had no money with which to do it. Only another less-than-legal maneuver saved him. He used the receipts from wool he sold, which really belonged to his farmer customers, to cover the wheat.¹⁷ Mathews did not run these risks lightly. He was fully aware of the moral and business implications of making free with money which did not belong to him. His mental anguish was considerable, but the overriding consideration was, as always, Tawas must be kept going.

Meanwhile the depression was mitigating, lumber prices were advancing, and if the Whittemores could hold out through the milling and shipping season of 1859, there was hope the company could stay afloat. By March higher grades of lumber were bringing from \$32 to \$35 in Albany, and in May the Whittemores were offered \$23 for clear on the dock at Tawas, a really good price.¹⁸

However, misfortune still dogged them; misfortune or mismanagement, it is difficult to tell which. There was for some reason a serious delay in getting sawyers and putting the mill in operation in the spring of 1859 and sawing did not begin until May 21.¹⁹ This was no year for delay in marketing cargoes, for the market became dull in June and the Whittemores' first cargo was not ready to ship until mid-July.²⁰ By August the market glut and downward trend of prices was serious, and Hill, Thomas and Company of Albany refused to take the Whittemores' second cargo of the season, which meant that Mathews had to make a trip to Albany to dispose of it.²¹ One bright spot in their affairs was that the partners were able to re-finance once more, obtaining a new mortgage from the Insurance Bank, which relieved them of immediate jeopardy.²² However, the lands covered by the Covert mortgage were sold for debts on Octo-

¹⁵ Letter, Feb. 18, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

¹⁶ Letter, March 10, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

¹⁷ Letter, March 19, 1859, A. B. Mathews to Alex. Whittemore Papers.

¹⁸ Letter, May 13, 1859, Charles Whittemore to James Whittemore, Whittemore Papers.

¹⁹ Letter, May 12 and 25, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²⁰ Letters, June 9 and July 13, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²¹ Letter, Aug. 10, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²² *Ibid.*

ber 5, 1859, to a Mr. Winne for the exact amount unpaid.²³ There were still other suits and injunctions out against them,²⁴ and Mathews began counseling the sale of the firm to Charles or James to provide more time for maneuver.²⁵ Sawing ceased on October 15 that year, and as usual the volume of lumber had proved far short of earlier estimates and would not realize enough to pay advances for the season, to say nothing of past debts.²⁶ Four cargoes were shipped in the summer of 1859, two to Albany and two to Chicago, representing approximately 800,000 board feet. For these the company received about \$8,500. Although the proceeds of the last two cargoes had gone to Bridge and Lewis, Mathews was still in serious trouble, and the Detroit brokers were threatening to sell his Pontiac flour mill, to which they held title, if he could not pay his debts to them.²⁷

Nonetheless, the Whittemores stayed in business and did not lose control over their property. There is neither the space nor the necessity for continuing the story in any great detail. Times were again difficult in 1860 and 1861. Heavy snows made cutting and hauling timber easier but also resulted in a glutted market. Charles took title to the mill property and land covered by the bank mortgage in 1860 to avoid losing it, and chattel mortgages were frequently placed on newly cut logs to avoid injunctions by the firm's creditors. The Whittemores were finally saved only by the general boom that followed the first financial uncertainties of the Civil War period. While Whittemore and Company made no spectacular successes, the firm began to hold its own, and Mathews' Pontiac business prospered and grew. As Mathews' solvency increased, Whittemore and Company's insolvency proved less of a threat. The firm was still far from prosperous when Gideon Whittemore died suddenly at Tawas City in July of 1863; old debts were still outstanding and every piece of the family's property was heavily mortgaged, but the firm had weathered the first ten years. Perhaps a sign of permanence, at least of Tawas as a settlement, was to be seen in the fact that the first school, taught by the lighthouse-keeper's daughter, held its session in the upper story of the Whittemore store that year.²⁸

With Gideon's death, the first generation completed its task, leaving all control in the hands of the sons and brother-in-law, and

²³ Letter, Oct. 5, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²⁴ Letter, Oct. 11, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²⁵ *Ibid.*

²⁶ Letter, Oct. 20, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²⁷ Letter, Dec. 22, 1859, A. B. Mathews to James Whittemore, Whittemore Papers.

²⁸ *History of the Lake Huron Shore*, p. 138.

a new third generation, native to Tawas was arriving on the scene. Charles had married in 1855 and James in 1856; both deserted Pontiac completely and made their homes in Tawas City where their children were born and grew up. After Gideon's death they were joined by their younger brother, William, who remained in business with Charles until the old mill was sold in 1878.

The year 1866 really marked the dividing point. In the winter of that year lumbermen began operating in force on the Au Sable, and other mills were soon erected in Tawas to join the Whittemores' in serving the growing industry. While the whole bay area boasted a population of only 53 in 1866, by 1868 there were over 1,000 people living in Tawas City alone.²⁹ The Whittemores were in a position to reap the benefits of this expansion, for in January of 1866 a final settlement had been arranged with the Insurance Company Bank, in which the bank agreed to give up its large accumulations of interest in return for a settlement of \$12,000, payable at the rate of \$2,000 per year. The bank gave the Whittemores a deed and took a mortgage, freeing them of their worst encumbrance and making it possible for the Whittemores to sell land, logging rights, and house lots.³⁰ Tawas City was on its way at last.

This story has been concentrated on two years, 1854 and 1859, partly because of the fullness of the Whittemore papers for those years, but also because those two years illustrate so vividly the enormous difficulties that could attend a lumbering venture. No doubt the Whittemores' greatest disadvantage was lack of capital. Had they had three times \$18,000 in 1854, their story might have had a different tone. They would then have been in a position to absorb the inevitable losses of the first years. They could hardly make money when their mill ran at perhaps one third of capacity because they lacked working capital to finance the logging operations that would have given it sufficient fodder. Transportation problems also contributed more than a normal share to their difficulties. In addition to their mill's isolation from markets, there were problems in getting the logs to the mill. The Tawas River was never really satisfactory for floating out logs, even after the enormous effort spent on clearing it. It was short on water and prone to sand bars. The wooden railroad and other logging roads proved more reliable for bringing in the logs, but were of course much more expensive forms of transportation. Without doubt the costs of production for Whittemore and Company were too high.

²⁹ *Iosco County Gazette*, Sept. 24, 1868.

³⁰ *Diary of James Whittemore*, Jan. 9, 1866, Whittemore Papers.

In mid-century America the courts were full of loggers and lumbermen pleading bankruptcy.⁸¹ That the Whittemores avoided swelling this total is due only to technicalities and Mathews' heroic efforts. As he wrote to his brother-in-law, James, in December of 1866, shortly after his wife Harriet's death:

I hope the day is coming when Tawas will be and do something! Oh what a crushing burthen it has been — to all no doubt — certainly to me. My dear Harriet was always my confidant in business matters, as I felt it a duty to let her know how matters were going so that she would not be in the dark . . . and she used to sympathize with me over the dreadful Tawas misfortune — over the straits I was frequently in & the means I was forced to resort to, to bear up against it. . . . I did *absolutely expect* that Tawas would do something considerable for me in this way instead of drawing on me! But perhaps that time may yet come when I shall get something from this source. I hope so. But if it had only come in my dear Harriet's time how gratifying it would have been.

The Whittemores' problems — high interest, expensive transportation and marketing costs, and relative inexperience with lumbering — were typical of the difficulties of small operators in the formative years of the Michigan lumbering industry. And in a broader sense, like most small businessmen of the day, the Whittemores' basic problem was their consistent inability to foresee the need for or to command sufficient capital to make their enterprise go. The Whittemores' inexperience, managerial inadequacies, and personal difficulties were perhaps typical of thousands of contemporaries in other small enterprises.

Tawas had extracted a heavy price from its founders. But of such unwilling and unexpected sacrifice was much of America built.

⁸¹ William Gerald Rector, *Log Transportation in the Lake States Lumber Industry* (Glendale, Calif., 1953), p. 35.



New England Journalist

Highlights in the Newspaper Career of Charles H. Dow

¶ A major accomplishment sometimes overshadows the background that made accomplishment possible. The creator of Wall Street's most famous investment formula was, in fact, a journalist and entrepreneur of note. His total contribution to the financial community was far larger than the theory for which he is remembered today.

by George W. Bishop, Jr.

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The lexicon of Wall Street has inseparably joined the name of Dow to the word "theory" with the result that Dow's primary work as a journalist has been shielded from view. In him we are not concerned with a financial visionary evolving a Monte Carlo system of beating the stock market, but with a newspaper man of the highest standing who learned his trade under the leadership of two of the most notable editors of the day. Dow's writings in *The Wall Street Journal*, of which paper he was the founder and first editor, showed a firm grasp of economic theory, domestic and

international banking, corporate financial practices, financial and economic history, as well as stock market theory and practice. His was beyond a doubt a versatile personality and his associates were aware of the fact that he was a man of unusual capacities.

Although versatile, Dow was unassuming. He was "of large physical mould and sinewy frame"; modest in dress as well as in speech and manner.¹ Never self-assertive he was "a man who could not be induced to see merits in himself, and who was very slow to admit faults in others."² Thomas F. Woodlock, an early associate on *The Wall Street Journal*, writes "Dow was a tall, black bearded, slightly stooping man, with a grave air and the measured speech of a college professor."³ Dow was noted for his reticence and was laconic in speech.⁴ This New England characteristic was noted in New York City as well as in Springfield, Massachusetts.⁵

Charles Henry Dow was born in Sterling, Connecticut, on November 6, 1851. His father, Charles Dow, was a farmer who inherited the homestead in Sterling where he had been born in 1816. The family traced their ancestry to Henry Dow who arrived in Boston in 1637 and took up his lot in Watertown, which was just being settled about ten miles west of Boston. A very inconspicuous citizen, although often mentioned in the land records, Henry Dow sold his land holdings on a rising market and left Watertown a moderate capitalist. He settled in Hampton where he became a man of influence and a brisk trader in real estate. Dow's ancestors also included Thomas Dow, "Ye Wheelwright of Ipswich," who is reported to have avoided publicity, although a successful speculator and a keen judge of real estate, and Ebenezer Dow (1692-1775) who, in 1715, settled in Volunteers' Settlement, which was located a short distance from the area later known as Sterling. The family apparently arrived in Sterling between 1790 and 1810, since Ebenezer Dow (1731-1810) was listed in the 1790 Census as living in Voluntown but died at Sterling on April 28, 1810. He was Dow's grandfather. Dow was distantly related to Lorenzo Dow, the famous itinerant preacher.⁶

¹ *The Wall Street Journal*, Dec. 6, 1902.

² *The Wall Street Journal*, Dec. 5, 1902.

³ *The Wall Street Journal*, June 27, 1932.

⁴ *The Springfield [Massachusetts] Daily Republican*, Dec. 5, 1902.

⁵ Oliver J. Gingold, who joined the staff of *The Wall Street Journal* in 1900 at the age of 15 years when Dow was editor, writes concerning Dow: "I recollect Mr. Dow as a tall, portly, imperturbable man with a beard, rather stooped. I never recollect his smiling and he did not talk much to anybody." [Letter to the author dated March 13, 1950.] There is no doubt that this reticence was a pronounced characteristic of Dow's personality. Almost everything written concerning his life and character mentions it.

⁶ For information on Dow's genealogy see Robert Piercy Dow (compiler), *The Book of Dow* (Rutland, Vt., 1929), *passim*.

Dow's father died when he was six years old, leaving the farm to the widowed mother. Dow had two older brothers who died in childhood, with the result that he was the last member of an historic line which became extinct upon his death. Although he married Lucy M. Russell on April 9, 1881, he had no children.

Little is known of Dow's early life and nothing of his schooling. He left the farm at an early age and turned his hand to several kinds of work.⁷ Later in life, when he was editor of *The Wall Street Journal*, a story is told that some visitors, who had gathered in his office, were discussing the different kinds of work that they performed when they launched their business careers. Dow, as usual, was silent, but swiftly wrote a list of the various occupations he had engaged in prior to entering newspaper work. The extensiveness and diversity of the employment inscribed on the list amazed his companions.⁸

Early in life Dow decided the field of journalism was to his liking, and in 1872, at the age of twenty or twenty-one, he joined the staff of *The Springfield Republican* of Springfield, Massachusetts.⁹ This was, at the time, a newspaper of national repute under the editorship of Samuel Bowles, one of the newspaper giants of all time.¹⁰ In 1872 Bowles decided to separate *The Springfield Republican* from the printing and binding business of the combined enterprise. This entailed dissolving the partnership that owned and controlled the entire operation. Friction developed and Bowles' old partners left and purchased a rival newspaper, *The Springfield Union*, taking part of Bowles' staff with them. The vacant places were quickly filled by new men, and there is a very strong possibility that this is when Dow joined the paper.¹¹

We should not underestimate Dow's newspaper experience on *The Springfield Republican*. Samuel Bowles was as widely known as any man in his generation and his influence was enormous. As an editor he was exceptionally careful and conscientious, although reputedly reluctant to make corrections in his newspaper.¹² Bowles

⁷ *Brooklyn Daily Eagle*, Dec. 4, 1902.

⁸ *The Wall Street Journal*, Dec. 5, 1902.

⁹ In the City Directories of Springfield, Massachusetts, Dow is listed as Assistant Editor of *The Springfield Republican* for the years 1872-1873, 1873-1874, and 1874-1875. His residence is given as 60 Carew Street, and also 34 and 36 Terrence Street.

¹⁰ This was Samuel Bowles III. His father, who founded the newspaper in 1824 as a weekly, was Samuel Bowles II. It became a daily on March 27, 1844. Upon the death of Samuel Bowles III his son, Samuel Bowles IV, assumed control of *The Springfield Republican*. Due to the similarity of names it is peculiar that more confusion did not exist. In the early period of his career Samuel Bowles III was known as "Young Sam," and after his death he was often referred to as "the elder Bowles." See Frank Luther Mott, *American Journalism* (New York, 1950), pp. 264-265, 453-454.

¹¹ For an account of the life of Samuel Bowles see George S. Merriam, *The Life and Times of Samuel Bowles* (2 vols.; New York, 1885).

¹² See James Melvin Lee, *History of American Journalism* (Boston, 1923), p. 402. In

was a master of the art of writing a news item. He had a passion for terse diction condensing a lengthy editorial into a paragraph, and a paragraph into a two-line item. His sentences "snapped like a whip and sometimes cut like a knife."¹³ He is credited with being the originator of the newspaper maxim: "Put it all in the first sentence."¹⁴ He was one of the first to teach the "lead" technique which is now standard newspaper procedure. Van Wyck Brooks writes: "The *Republican* was a school for journalists, known far and wide, and travellers — Dickens and Kingsley among them — constantly stopped at Springfield in order to have a chat with Samuel Bowles."¹⁵

While on the staff of *The Springfield Republican*, Dow covered the city route and was noted for the humorous cast of his writing. He was one of the best known of the *Republican's* reporters and his tall figure was a familiar one as he went about the streets of Springfield with long strides, intent upon newsgathering. Since he was attached to the City Department of the paper it was natural that Dow would meet a large number of his fellow townsmen as he investigated those usual, and unusual, happenings that are the bread and butter of the city reporter. He systematically covered Springfield, and although he was reserved and sparing of words, nevertheless, he was a reliable reporter. Other men might be readier in meeting people, but few could match Dow in persistence. When he made friends he kept them.¹⁶

Dow, a young man in his early twenties, was at an impressionable age; Bowles was at the height of his career as a great journalist. The question of Bowles' mastery and what it meant to Dow in Springfield, as well as later in his newspaper career, is not readily answered, but tutelage by a great master can be a rewarding experience for an apt pupil. Dow's later editorial work shows clear evidence of the imprint of Samuel Bowles' instruction.¹⁷

Dow remained with *The Springfield Republican* until 1875 and

this account Bowles advises a man whose death had been erroneously recorded in the paper that he cannot print a correction but will bring him back to life by putting his name in the birth column in the next issue.

¹³ Merriam, *Life of Samuel Bowles*, Vol. I, p. 199.

¹⁴ *Ibid.*, Vol. II, p. 359.

¹⁵ Van Wyck Brooks, *New England: Indian Summer* (New York, 1940), p. 317.

¹⁶ Dow's work as a city reporter is described in the obituary in *The Springfield Republican*, Dec. 5, 1902.

¹⁷ Charles R. Miller, who later served for nearly forty years (1883-1922) as editor-in-chief of *The New York Times*, was on the staff of the paper at the same time as Dow. S. B. Griffin, who later became managing editor of *The Springfield Republican*, was also a contemporary staff member. For an account of the experiences of Charles R. Miller on *The Springfield Republican*, see F. Fraser Bond, *Mr. Miller of the Times* (New York, 1931). Both Miller and Dow joined the staff of the *Republican* in 1872, and left in the same year, 1875. Dow is not mentioned by Bond.

left, a trained newspaper man, for Providence, Rhode Island. The circumstances of his leaving are not recorded, but neither was the event of his arrival made a matter of record. However, the *Republican* did not forget him and a later editor of that famous paper, Waldo L. Cook, recalls that in his own early years on the staff of the paper Charles Henry Dow was regarded as one of the notable "graduates" of Samuel Bowles' journalistic school, and that "not infrequently I [Cook] heard my elders mention 'Charlie' Dow and his success in financial journalism."¹⁸

The Providence City Directory of 1875 lists Charles H. Dow as night editor of *The Providence Star*. We know little of his early days in Providence. He continued with the *Star* the next year as well, and it is reported that he also wrote for *The Providence Evening Press*.¹⁹ Since the *Star* was the morning paper published by the Providence Press Company, and the *Evening Press* was their evening publication this would have been normal newspaper procedure for the times. Although some papers employed separate staffs for the morning and evening newspapers, in many cases one staff serviced both papers. The Reverend Sidney Dean served as editor of the *Star* and the *Evening Press* during the years Dow wrote for the *Star*. The hard times of 1873 caused a reduction in the price of the *Evening Press* to 3 cents and to counterbalance this the price of the *Star* was raised from 1 cent to 2 cents. During the depression, Dean had a difficult time maintaining the newspapers but managed to do so. It is reported that he succeeded by "good management and strict economy." This leads us to believe, with other evidence, that Dow was not paid at an extravagant rate.²⁰

From the *Star*, Dow moved to *The Providence Journal* where he served under another newspaper giant, George W. Danielson who was then editor. Dow was a reporter on the *Journal* for three years, 1877 through 1879, and John W. Barney, an assistant to Danielson, tells how Dow came to be employed by the *Journal*:²¹

He [Dow] came from work with the elder Bowles on the *Springfield Republican* — an excellent school — and the manner of his joining the *Journal* forces was characteristic. He had been working on a local paper with results not very satisfactory. He called on Mr. Danielson, showing him his string of articles for a fortnight, told him what he had received for it,

¹⁸ Letter to the author dated Oct. 26, 1949.

¹⁹ *The Wall Street Journal*, Dec. 5, 1902; *The Providence Journal*, Dec. 5, 1902, and the *Brooklyn Daily Eagle*, Dec. 4, 1902.

²⁰ The account of Dean's editorship may be found in *Printers and Printing in Providence, 1762-1907*, Prepared by a Committee of Providence Typographical Union Number Thirty-Three as a Souvenir of the Fiftieth Anniversary of Its Institution [1907].

²¹ *Half a Century With The Providence Journal* (Compiled and Issued by The Journal Company for Private Distribution, Printed for Preston and Rounds Company by E. L. Freeman and Sons, 1904), p. 72.

and asked for a chance to work. Mr. Danielson said he had nothing he could give him to do. Mr. Dow said he didn't need to be given anything to do; that he knew news, and wanted only a chance to go out and get it for the *Journal*. From that time until he left to go to New York his work was a strong feature of the *Journal's* columns.

Danielson was an outstanding editor.²² Like *The Springfield Republican*, the *Journal* was a first-class newspaper. Danielson resembled Bowles in that he was painstaking and conscientious almost to a fault. His style was not unlike that of the famous Springfield editor in its terseness, but he was more noted for his administrative ability and technical skill than his literary efforts. It is impossible to tell to what extent Danielson influenced Dow. However, Dow worked for three years under his direction. It should be noted that before he was thirty years of age, Dow had served under both Samuel Bowles and George W. Danielson, two of the most outstanding editorial figures New England has produced. There is every reason to assume that this experience was of great assistance in his later newspaper career.

In the attempt to identify Dow's work as published in *The Providence Journal* the passage of time presents its usual hazard to the research worker. Newspaper records prior to the turn of the century are not noted for their completeness, and the use of a by-line was not the usual journalistic practice of the 1870's. We find no evidence of *The Providence Journal* employing by-lines during the years 1877, 1878, and 1879, when Dow served on the staff. Several times when members of the faculty at Brown University contributed articles, the editor identified the author by a brief note of introduction, usually referring to the writer's special qualifications. The same practice was followed when a member of the clergy wrote on theological subjects, or a medical doctor on a matter of a professional nature. Also, at times, special articles were signed by a nom de plume, or the initials of the author. Although this latter practice was not followed extensively by *The Providence Journal*, it was used when Dow was on the paper.

²² From the age of 14, when Danielson entered a village printing office in Connecticut, until his death forty years later he was concerned with printing or the newspaper field. He acquired an interest in *The Providence Journal* on Jan. 1, 1863, and in less than a month a new paper *The [Providence] Evening Bulletin*, was successfully added to the *Journal*. Danielson took full charge of both papers in 1866 and remained in command until his death on March 25, 1884. It is an illuminating commentary on the caliber of editors of the day that Danielson's predecessor as editor of *The Providence Journal* was Professor James B. Angell. Angell had resigned from the faculty of Brown University in 1860 to take the editorial reins of the paper. In 1866 he became President of the University of Vermont and later served as President of the University of Michigan. For accounts of the life of Danielson see "A Hundred Years of the Providence Journal," Supplement of *The Providence Journal*, July 23, 1929; *Half a Century With the Providence Journal*, pp. 18-19, and *A Memorial of George Whitman Danielson* (Providence: Privately Printed, 1885).

It has been possible to identify five special articles, as well as a series of articles on Leadville, Colorado, as the work of Charles H. Dow. Three of the special articles were later published in pamphlet form and by this means the authorship is firmly established. One of the special articles was collected as a booklet of newspaper clippings by an enterprising librarian at Brown University who had the foresight to identify the author. This made it possible to identify the fifth article as well, since Dow mentioned that both articles were from the pen of the same author. The series of articles on Leadville are identified by the initials "C.H.D." as well as by other references.

The first article of historical importance was entitled "Our Steamboats." It appeared in *The Providence Journal* on April 23, 1877, and later was used as a supplement to *The Evening Bulletin* on April 25, 1877. The article was later printed, in the same year, in pamphlet form by William Turner and Company, New York, under the title *History of Steam Navigation between New York and Providence*. The pamphlet consists of 29 pages of small print and contains several colored illustrations.²³ In this work Dow traced the history of steam navigation on Long Island Sound and Narragansett Bay from 1792 to 1877. He included observations on transportation in general during the early 1800's, and noted the operations of packet lines, stage coaches, and some of the early railroads.

The second of Dow's articles worthy of mention is his history of Newport, Rhode Island, which appeared in *The Providence Journal* on May 22, 1879, and in *The Evening Bulletin* on May 24, 1879, entitled "Newport: The City by the Sea." It was republished, in 1880, in pamphlet form, by John P. Sanborn, Newport, Rhode Island.

"Temples of Learning" appeared in both *The Providence Journal* and *The Evening Bulletin* on September 2, 1878. In it Dow traced the history of public education in Providence. It was later republished, in 1878, as part of *A Brief Sketch of the Establishment of the High School* (City Document No. 29). It is of local Rhode Island interest, as are his articles "The State Farm"²⁴ and "Prisons and Prisoners."²⁵

²³ The pamphlet was prepared for the Providence and Stonington Steamship Company, and is a reprint, with some abridgement, of the article entitled "Our Steamboats." It was republished in 1942 by the Steamship Historical Society of America, Peabody Museum, Salem, Mass., as the second publication of its Reprint Series.

²⁴ This is a description of Rhode Island's charitable and corrective institution coupled with a history of the care of the pauper, insane, and criminal members of society within the confines of Rhode Island. It appeared in *The Providence Journal*, and in a supplement to *The Evening Bulletin*, on July 14, 1878. To our knowledge it has not been republished. It was collected as a booklet of clippings by a librarian at Brown University and identified by a notation in ink on the cover as "State Farm described by Dow of the 'Journal.'"

²⁵ As the title indicates, the article is an historical account of prisons, and famous

In these articles Dow established his reputation as a historian of the local scene. The style is that of an accomplished writer. His work is carefully done and those students of local Rhode Island history, who are endlessly searching for a true picture of early America, will do well to study the contributions of this forgotten historiographer of Rhode Island's early days.

The summer of 1879 was an eventful one for Dow, since he covered the Colorado silver boom as a special correspondent for *The Providence Journal*. He accompanied a party of capitalists by train to Denver, from which point the final leg to Leadville, Colorado, was covered by narrow-gauge railway and stagecoach. The party included David H. Moffat, the last of Colorado's railroad builders; Stephen B. Elkins, later Secretary of War and United States Senator from West Virginia; Brayton Ives, President of the New York Stock Exchange; H. A. W. Tabor, the prototype of the "Carbonate Kings," as well as other prominent New England and New York businessmen.

Dow's articles appeared in *The Providence Journal* and *The Evening Bulletin*, from June 10, 1879, until August 2, 1879, under the title of "The Leadville Letters," and covered a description of the trip as well as of the activity and lure of Leadville which, from the standpoint of mushroom growth, occupied a unique position in the mining annals of the West. There is no doubt that these accounts possess information of interest to the historian concerned with Colorado, particularly Leadville, in the year 1879. Several significant facts should be noted with respect to "The Leadville Letters." In the first place, Dow was on the scene in Leadville at the height of the boom. At the time he wrote the articles he was an established journalist. And finally, he was in a position, by virtue of his membership in the visiting party, to obtain information from the leading actors in the drama.²⁶

The articles were published in *The Providence Journal* on June 10, 16, 23, 28 and July 7, 21, 28, and 30, 1879. The same articles appeared in *The Evening Bulletin* on June 18, 23, 30; July 3, 10, 21, 31 and August 2. They have not, to my knowledge, been republished.

With his Leadville experience a part of his journalistic record,

prisoners, in Rhode Island. It appeared in *The Providence Journal* on Jan. 20, 1879. We find no record of it having been republished. In "The State Farm" Dow refers to "Prisons and Prisoners" as coming from the pen of the same author.

²⁶ Dow's arrival was noted in the *Leadville Daily Chronicle*, May 27, 1879, as follows: "Mr. Charles Dow is in town doing the carbonate department of the *Providence Journal* which, by the way, is the best local paper on the Atlantic frontier."

Dow, in 1880, moved to New York City.²⁷ The reasons for the change are not known, but *The Wall Street Journal* describes his early experiences in Gotham:²⁸

Practically unknown in New York and with no backers of any kind, he came into Wall Street and sought employment as a reporter on mining stocks. He obtained a position at a small salary with one of the daily papers, his duties at once bringing him into intimate connection with the financial world.

When Dow came to New York in 1880, financial reporting was already a highly specialized field.²⁹ Alexander Dana Noyes, who began his famous newspaper career as a Wall Street reporter in 1884, provides an interesting picture of financial reporting in the 1880's.³⁰ It should be remembered that financial columns had been part of the New York daily press since 1835, when the famous "Money Articles" of James Gordon Bennett first appeared in the *New York Herald*.³¹

Dow was soon known in Wall Street as a reticent but reliable reporter. He made the rounds of the Street and it was recognized that the quiet, financial reporter who took shorthand notes on his cuffs was turning routine financial reporting into expert financial analysis. By virtue of his service under Bowles and Danielson, Dow was, of course, looked upon as a master journalist. His training and personality were such that the financiers he interviewed recognized immediately that he could be relied upon to quote them accurately, and that he could be trusted with confidential news.³²

Dow was later employed as a reporter by the Kiernan News Agency, which apparently was the pioneering enterprise in this highly specialized field. The writings of Thomas F. Woodlock and Henry Alloway describe John J. Kiernan as an innovator. For a decade prior to Dow's arrival in Wall Street, the Kiernan News Agency had delivered handwritten bulletins to the banks and brokers of the financial district by messenger boys. These bulletins were duplicated from manifold books of tissue paper sheets and carbon paper and were called "flimsies" or "slips."³³ Deliveries

²⁷ *The Springfield Republican*, Dec. 5, 1902; *The Wall Street Journal*, Dec. 5, 1902; *The Providence Journal*, Dec. 5, 1902; *Brooklyn Daily Eagle*, Dec. 4, 1902.

²⁸ *The Wall Street Journal*, Dec. 5, 1902.

²⁹ For an account of the financial editors and reporters of the New York press in the early 1870's see Matthew Hale Smith, *Twenty Years Among the Bulls and Bears of Wall Street* (New York, 1871), pp. 519-533.

³⁰ Alexander Dana Noyes, *The Market Place* (Boston, 1938), pp. 38-55.

³¹ Frederic Hudson, *Journalism in the United States, from 1690 to 1872* (New York, 1873), pp. 434-437.

³² *The Wall Street Journal*, Dec. 5, 1902.

³³ This manifolding process was used by the Associated Press in the early 1870's. See Victor Rosewater, *History of Coöperative News-Gathering in the United States* (New York, 1930), p. 143.

were made at irregular intervals as news developed. The Kiernan News Agency was the headquarters of the roving financial reporters of the New York daily press. Here they would rendezvous and exchange bits of news and Wall Street gossip. Naturally, Kiernan would supply them with newsworthy items and receive information in return. There is a strong possibility that Dow joined the meetings of the Wall Street reporters at the Kiernan News Agency during his coverage of the Street and in this manner became acquainted with John J. Kiernan.

Henry Alloway, a veteran Wall Street reporter, many years later described the operations of the Kiernan News Agency.³⁴ The atmosphere was apparently a leisurely one, since Alloway notes:

If a house of the status of Morgan, Belmont, Brown, Cisco, Conner, Seligman, Lanier had announcement to make, there might be hustle; and often such super-events did happen; but the average output of an average day by the Kiernan News Agency about fitted a sociable holiday. London quotations an hour ahead of Stock Exchange opening, the end-of-the-week Bank Statement and foreign mail closing hours were top-notch fixtures. Periodically, railway earnings and freight rate fluctuations got attention, not by being sought out but issued as a courtesy.

Either prior to the time he joined the Kiernan News Agency, or when he was a member of the staff of that organization, it is reported that Dow wrote financial articles for the [New York] *Mail and Express* at the time this newspaper was the property of Cyrus W. Field.³⁵ Since Field did not combine the [New York] *Evening Mail* and the [New York] *Express* until 1882, there is a strong possibility Dow wrote for the *Evening Mail*, which was the property of Field prior to the combination of the two papers.³⁶

In November, 1882, Dow and a fellow worker, Edward D. Jones, left the Kiernan News Agency to form Dow, Jones & Company.³⁷ They located in a small room in the rear of 15 Wall Street "a ramshackle building next door to the entrance of the Stock Exchange."

³⁴ *The Wall Street Journal*, June 27, 1932. The article is entitled "Wall Street News Gathering a Half Century Ago" and signed "H. A."

³⁵ *The Wall Street Journal*, Dec. 5, 1902; *The New York Times*, Dec. 5, 1902; *Brooklyn Daily Eagle*, Dec. 4, 1902; *The Providence Journal*, Dec. 5, 1902.

³⁶ Winifred Gregory (ed.), *American Newspapers, 1821-1936* (New York, 1937), p. 471. Since Dow arrived in New York in 1880 and founded Dow, Jones & Company in 1882, this connection was probably one of relatively brief duration at any event.

³⁷ Edward D. Jones was born in Worcester, Massachusetts, in 1856, and was a student at Brown University of the Class of 1877. However, he left the halls of learning for the more exciting role of a newspaper reporter. In 1876 and 1877 he was a reporter on *The Providence Evening Press*. In 1878 the Providence City Directory lists him as Editor of *The Providence Star* and in 1879 and 1880 he is listed as Editor of *The Sunday Dispatch*. According to a letter Jones wrote to Dow, Jones & Company at the time of Dow's death, and published in *The Wall Street Journal* on Dec. 5, 1902, he first became acquainted with Dow in 1876 in Providence. Jones withdrew from Dow, Jones & Company on Jan. 9, 1899. He died in Providence in 1920.

Like the Kiernan News Agency, the business of Dow, Jones & Company consisted of delivering "flimsies," or "slips" to the financial institutions of Wall Street. Dow and Jones took turns collecting news during market hours, while Charles M. Bergstresser, who later became a partner in the enterprise and was likewise a former employee of Kiernan, wrote news slips by the manifold process. Messenger boys provided the locomotive power to see that the "slips" arrived at their proper destinations. After business hours Jones would make a nightly visit to the Windsor Hotel, a famous meeting place of leading Wall Street figures, for any additional news, and would then repair to Dow's apartment where he and Dow prepared the news for the next day. Bergstresser opened the office in the morning and wrote an early release of which the "Summary for private wires" and "London prices" were the important items.²⁸

By 1884, although the business was still located at 15 Wall Street, it had expanded in size. On one side of the room a few plain, pine boards walled off a cubicle to give Dow and his assistant a private office of sorts. Jones had a desk at the far end of the room upon which he rested his feet as he reclined in a lean-back chair and dictated the news to four or five writers. A dozen or more "lively boys" waited for the manifold writers to arrange the news slips so that they could deliver them to the customers on their respective routes. Each manifold writer had certain messenger boys assigned to him, and a boy's route consisted of from 8 to 12 customers. The chief newsgatherers, or reporters, were Bergstresser and James King. Jones, besides dictating the news to the manifold writers, directed the activities of the messenger boys.

The scene was one of great activity. As soon as the boys returned from covering their routes they would immediately start out again if additional news slips had been prepared by the manifold writers. Everyone connected with the firm, messenger boys included, solicited subscriptions for the news service and were paid for their efforts on a commission basis when successful. Likewise, the messenger boys reported any news leads they encountered when they were making their rounds of the banks and brokerage offices. The closing of the Wall Street Bank in August, 1884, was reported to Jones by a breathless messenger boy when he noticed a man closing the door during business hours. King and Bergstresser were dispatched to the scene and soon confirmed that the bank had suspended operations.

²⁸ *Barron's*, Aug. 24, 1931. The article is entitled "Home Sweet Home" and, according to the comments of the editor in the same issue, was written by Thomas F. Woodlock.

Railroad earnings were items of paramount importance. The main railroads reported earnings on a monthly basis, and as the news was received a great shout of "earnings!" filled the air. This caused manifold writers and messenger boys to drop all other tasks and turn to the duty of forwarding the earnings figures to their customers post haste.³⁹

A printed news sheet containing the principal news items, which Dow, Jones & Company began publishing in 1883, was included in the last delivery of the day. This news sheet could be subscribed for separately and was the forerunner of *The Wall Street Journal*. Apparently Dow, Jones & Company began their own printing operations in 1885.⁴⁰ It is interesting to note that one of the early subscribers to the service was R. P. Flower, a prominent broker with a considerable Wall Street following. He later served as governor of New York, and his sudden death in May, 1899, unsettled trading on the New York Stock Exchange.

On Christmas Eve, 1885, Dow became a member of the New York Stock Exchange, and he remained a member of that institution until April 30, 1891. The records of the Exchange indicate that he was a partner of Goodbody, Glynn & Dow from December 24, 1885, to April 30, 1891, when the firm dissolved. The successor firm, Robert L. Goodbody & Company, did not list Dow as a partner.

The circumstances surrounding Dow's partnership in the brokerage firm are not altogether clear. Henry Alloway advised that Dow refused an invitation to become a partner in Winslow, Lanier & Company, the American representatives of the Deutsche Bank of Berlin, but that "in a good fellowship to an old family friend he did for a season identify with a commission house, whose title came to be Goodbody, Glynn & Dow."⁴¹

William Peter Hamilton, who joined the staff of *The Wall Street Journal* in 1899 and was editor of that publication from January, 1908, until his death on December 9, 1929, wrote: ⁴²

Dow also had the advantage of some years of experience on the floor of the Stock Exchange. It came about in a rather curious way. The late

³⁹ The description of the operations of the firm in 1884 is based primarily upon a letter from John C. Gerrity to the Editor of *The Wall Street Journal* and published in that newspaper on Aug. 27, 1948. Gerrity was employed as a messenger boy by Dow, Jones & Company in 1884.

⁴⁰ Unpublished letter from G. H. Ramsden to C. E. Kissane, *The Wall Street Journal*, dated May 1, 1932. Ramsden was in the employ of *The Wall Street Journal* in 1885 and claims that the printing operation was inaugurated in February of that year. He states the press was installed at 71 Broadway, the old Oil Exchange. Also, see *The Wall Street Journal*, June 27, 1932, under heading "New Home for 50th Birthday." The date is likewise given as 1885.

⁴¹ *The Wall Street Journal*, June 27, 1932.

⁴² William Peter Hamilton, *The Stock Market Barometer* (New York, 1922), p. 22.

Robert Goodbody, an Irishman, a Quaker, and an honor to Wall Street, came over from Dublin to America. As the New York Stock Exchange requires that every member shall be an American citizen, Charles H. Dow became his partner. During the time necessary for Robert Goodbody to naturalize, Dow held a seat in the Stock Exchange and executed orders on the floor. When Goodbody became an American citizen, Dow withdrew from the Exchange and returned to his more congenial newspaper work.

The Wall Street Journal at the time of Dow's death printed a letter from Robert Goodbody which said, in part, "I came to New York in 1885 and at once there commenced between us [Dow and Goodbody] a close association in business."⁴³

The Wall Street Journal was first published on July 8, 1889, with Dow as editor, and it has been a part of the financial scene ever since. Thomas F. Woodlock, who joined the staff in September, 1892, advised that at that time the firm was still composed of Dow, Jones, and Bergstresser. Jones devoted his attention to the desk work of the firm, and Dow, Bergstresser, a reporter named Phelps, and Woodlock covered the reporting assignments. Dow attended to the news concerning the stock market, and was well known at the offices of the leading investment bankers and brokers of Wall Street. By 1893 a "lady typist" was added; in addition to her stenographic duties she answered the single telephone in the establishment. She was hired by Dow with the thought that her presence would limit the amount of profanity normally present in the newspaper offices of that day. A telegraph operator kept in touch with the Boston News Bureau, while a "special" Washington correspondent, a Philadelphia correspondent, and part-time correspondents in several other cities furnished the paper with regional news items.⁴⁴

The firm improved on its methods of collecting and delivering news and expanded in size. Most financial institutions in Wall Street found the service extremely useful if not a necessity. The addition of the wide page news ticker to its services in 1897 was an important factor in the growth of Dow, Jones & Company.

Dow's work on *The Wall Street Journal* firmly established his reputation as a financial journalist. He is generally given credit for compiling the first average of stock prices. The first issue of *The Wall Street Journal*, dated July 8, 1889, contained an average of 12 "active" stocks. Prior to 1897, Dow also employed a 20 stock

⁴³ *The Wall Street Journal*, Dec. 5, 1902.

⁴⁴ The Boston News Bureau was established by Clarence W. Barron in 1887. It was the New England correspondent of Dow, Jones & Company. See *Barron's*, Aug. 24, 1931.

average and a 60 stock average. These averages were the arithmetic mean of the prices of the individual stocks concerned. On October 8, 1896, Dow first published an average of 12 industrial stocks.

Dow's many paragraphs concerning the financial scene appeared in *The Wall Street Journal* until shortly before his death on December 4, 1902. In conformity with prevailing newspaper practice, Dow did not identify his writings. Therefore, the problem of identification of Dow's editorials in *The Wall Street Journal* is a difficult one. However, it is possible to establish the identity of his writings for the period April 21, 1899, to October 25, 1902, inclusive.

Since Dow was editor of *The Wall Street Journal* for a 13-year period (1889-1902), it seems reasonable to assume that he contributed many articles over the years.⁴⁵ Of course, as editor, he was responsible for the contents of the paper *in toto*. Woodlock states that Dow wrote the "Review and Outlook" column in *The Wall Street Journal* and places among his last articles those editorials dealing with the anthracite coal strike of 1902.⁴⁶ Gingold confirms that Dow wrote the "Review and Outlook" column.⁴⁷ This column made its initial appearance on April 21, 1899, or about ten years after the founding of *The Wall Street Journal*. It was published almost daily, but did not appear in every issue. Hence, it was not a daily feature but rather a special column.

Dow's editorials covered many subjects; the caliber and depth of his writings might well be illustrated by his treatment of the business cycle. There is no doubt that his views on this subject were advanced for the times. It must be remembered that Dow did not have the benefit of the statistical information available to those who followed him, but he made effective use of the material at hand. His editorials show that he was familiar with the commodity index number of the London *Economist*, Sauerbeck's English series, and Bradstreet's index number. From an academic standpoint he was apparently impressed by the work of William Stanley Jevons on the propensity of business to move in a cyclical pattern. Although Dow firmly believed there was a periodicity in the movements of the cycle, nevertheless he noted that special factors, primarily wars, interrupt business cycle movements.

⁴⁵ See *The Wall Street Journal*, Dec. 6, 1902. A letter from C. R. Heike reads in part, "I have been a daily reader of *The Wall Street Journal* for a number of years, and I have greatly appreciated the leading financial articles of the paper, most of which, as I understood, came from the pen of Mr. Dow."

⁴⁶ *The Wall Street Journal*, June 27, 1932.

⁴⁷ Oliver J. Gingold, "My First 50 Years in Wall Street," *The Exchange*, Vol. XII (April, 1951), p. 6.

The following passages illustrate Dow's grasp of the subject.

His editorial of April 25, 1899, noted that after a period of prosperity has run for some time "production will outrun consumption," and this would curtail "the prosperity of one industry after another resulting in contraction and later in the loss of profits."

In an article dated May 26, 1900, Dow's methodological treatment was similar to that later employed by Wesley C. Mitchell. Dow compared bank clearings in New York City with stock averages for 1873 to 1879, using the high and low points of clearings as his turning points in the cycle. He raised the point that the bank clearings series might not be an acceptable measure, since to some extent it reflected stock speculation. Therefore, he followed this comparison with others that included customs revenues; internal revenues; net earnings of national banks; railroad earnings; prices of pig iron, bar iron, bituminous coal, and anthracite coal; dividends paid by railroads; and stock prices. Dow ends with the thought: "The comparisons could be indefinitely increased without changing the essential conclusion, which is that business of all kinds moves in periods of alternate expansion and contraction."

Dow was conscious of the element of time with respect to changes in general conditions, and the editorial of May 10, 1900, contains the passage: "The great manufacturing and mercantile interests of the country are not going in a single month from great prosperity to depression."

The psychological factor was not overlooked. On April 24, 1899, Dow wrote: "A man who would hardly dare to put in his winter stock of coal one year will be found two years later quite willing to buy a coal mine, with a view of supplying the wants of the community."

An interesting point is brought out in Dow's editorial of April 24, 1900, when he noted:

It is evident that falling off in business as a result of high prices must strike the manufacturer of finished goods first. The man who buys to sell again had as soon have one price as another provided his margin of profit is the same, but every line of goods ultimately reaches the consumer, who does not sell again and to whom the price is vital.

It is vital in a sense . . . that finished goods should move freely into the hands of consumers. If this does not occur, the manufacturer of finished goods must buy less of partly finished products and that must lead to smaller purchases of raw material which in turn must reduce the employment of labor and thereby curtail the public power of buying food products and goods of every description. Trade continually works to such a circle

and the steps in this progression constitute the difference between rising and falling markets.

Changing conditions are noted in Dow's editorial of May 5, 1900, when he wrote:

As the country never stands still, it can be said accurately that times are always becoming a little better or a little worse. It seems to take about ten years at present for a complete revolution of the industrial and speculative wheel. The going up process is more rapid, more vigorous and necessarily much more agreeable than the decline.

On June 8, 1901, in discussing a loss of confidence and curtailment of demand in the contraction phase of the cycle Dow wrote: "It is a kind of flame which creates the fuel which is burned."

Dow discussed in editorials on January 22 and 23, 1902, the part played by credit. In the earlier editorial he noted:

Modern business is done chiefly on credit. As long as there is confidence, everything is serene. But any thing which impairs or seriously disturbs confidence might change the situation beyond the possibility of recognition within thirty days.

The following day Dow remarked:

A halt in a bull period always starts with something which lessens confidence in credits. When credits begin to shrink, business begins to contract, and as this throws labor out of employment, the great circle is established and generally runs until self correction takes place.

On February 27, 1902, Dow, in writing about the correlation of the employment of labor and stock market prices, stated:

Periods of depression in business and in prices are invariably preceded by periods of good business and advance in prices. At such times, which usually last for several years, there is a gradual increase in the employment of labor until at the high point abundance of work, large production, large profits and high prices go together.

It is equally certain that periods of depression begin with over trading, over production, over confidence, and general excess in all directions. Upon this condition of affairs comes some sudden shock. It may be an important failure; it may be some great catastrophe or national event; it is something which arrests attention and makes people stop and think.

They see they are extended, and begin to restrict operations in whatever line of business they may be in. Lenders of money restrict credits, merchants restrict purchases, creditors urge payments, and, as a result of this shrinkage, the demand for labor lessens a little in each case, but enough to make a large aggregate. This begins to be felt in reduced consumption, and this is the first turn of the wheel which brings about general contraction.

There is no doubt that Charles H. Dow was looked upon as one of the leading figures in financial journalism in the nation when he was active in penning his views on the then current economic scene. He knew his subject — the New York Stock Exchange — not only as a financial reporter and editor, but also as a member of that institution who could observe at first hand its *modus operandi*. In addition, he was equally at home in discussing banking affairs, corporate financial policy, and general financial matters.

The journalistic ability of Dow was probably best summed up by Thomas F. Woodlock who wrote: "Dow could make more interesting lines out of a given fact or idea than any newspaperman that this writer ever knew or heard of."⁴⁸

In all fairness we should consider Dow as one of the pioneers of American financial journalism and not primarily as the designer of a "system" to conquer the fluctuations in the stock market.

⁴⁸ *The Wall Street Journal*, June 27, 1932.





a Like the financial mart from which it derives its name, OVER THE COUNTER is designed for the types of exchanges not handled elsewhere. This feature has its origin in a demand among readers of business history for a place to compare ideas, voice comments on published articles and reviews, and publish research essays. Contributions are invited. The Editor and Advisory Board reserve the right to decide whether, on the basis of general interest, pertinence, and merit, such contributions will be published. OVER THE COUNTER will appear as often as the volume of contributions may dictate.

VALUES AND INCOME THROUGH TIME

ARTHUR H. COLE

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at Harvard University*

One of the recurring questions in both economic history and library work is the relationship of values in the past with those of the present. The question takes on various forms. Professor Morison (of Harvard) once asked me whether the payment by a Harvard student in about 1650 of a calf, presumably an animal in good condition, to cover his tuition for a term of the college year meant his giving up more than a modern student who might surrender \$625. Mr. Pottinger, working on the publishing business in France before 1789, wanted to know whether a book in 1600 or 1700 was then considered a luxury good or at least ought to have been so considered. Sometimes a student desires to know whether a workingman is better off now than he was a century or two ago, and, if so, how much better off.

Perhaps most frequent of all cases are those where a person has found the price of a commodity expressed in terms of some monetary unit — dollars or ducats or pounds sterling — and asks what that price would be in current dollars. And the same is occasionally true of the quotations of wage rates or other income.

Actually, one is dealing here with a very complex problem. A few comments will suffice to demonstrate that fact. Take the monetary unit — the dollar or franc or pound. Such units are prone to diverse experi-

ences, all of which have had effects upon their command over commodities or services: devaluation, often the reduction in the amount of gold in the basic unit or coin; effective increase in the number of such units in circulation as through the injection of bank money; an increase in the speed with which commodities or money may move in the economy; etc. Such changes render unreliable what looks at first blush like a very simple procedure: converting or expressing the price of the item at the earlier time in grains of gold of the then current coin; expressing the price of an equivalent modern item in grains of gold as required in the modern monetary unit; and then deducing that the value of the commodity had risen or fallen by a given percentage. The grains of gold have experienced changes in their purchasing power. And there is often the practical difficulty that most values of the eighteenth century and earlier dates (and some more recent ones) were expressed then in terms of a silver coin, while most modern values are expressed, at least nominally, in terms of a gold one; and then we are faced with the problem of choosing some ratio between the two metals, a ratio that has varied considerably from time to time.

Again, there are the difficulties of the changing character of almost all commodities and of their changing relative values. A bit of thought will bring the recognition that the shoe or the piece of cloth or the watch, even the bushel of corn, is by no means the same article now as a hundred years ago, let alone two or three centuries back in history. And the changes in values have not been uniform, of course. In general, manufactured goods have diminished in value much more than crude agricultural commodities. A dramatic case of variant value changes was brought out by Mrs. Raymond de Roover when she demonstrated that, in the fifteenth century in Italy, the cost of paper on which to print a book was severalfold the cost of its typesetting.

Then there is a certain cultural relativity that should be taken into account. This relativity has at least two aspects. First, one may note that the significance of a loaf of bread is different in a mode of living that encompassed only bread, cheese, and an occasional bit of fish than in an economy that is blessed with the riches of supermarkets. And, secondly, the restricted fare on a peasant's table of a few centuries ago may be distressing in and of itself; it may forecast disease and brief life expectancy. But it takes on another dimension entirely if it was also true that the peasant's "betters" ate almost identically the same menu.

Finally, I would make note of the practical difficulty of the lack of desired data. Reliable data on retail prices are especially scanty, and values of commodities at wholesale are a poor substitute in most cases. Also we know that there were considerable variations in commodity prices, wages, etc., between regions and cities within a single country before the evolution of modern transportation facilities. And price and wage series for many communities have yet to be compiled.

Confronted with all these difficulties of theory and fact, what can a student do? If we are willing to admit that there is no good solution, what actually is the least bad?

Perhaps the best among poor tactics is that of relating the specific

value in question (the price of a Bible, the profits of a merchant, etc.) to one or more of the few relatively stable points in changing societies, preferably to more than one such point. One of these points is the reward paid to common labor, although here it is necessary to be sure that either board or lodging or both were not included. Again, the duties of a judge or school teacher have not changed greatly; the salary and fees paid them would serve as a useful measure. For the last couple of centuries, the nature of wheat, or salt, or salt fish, has not changed as much as some other commodities, although alterations in quality have not been negligible. If one is unable to secure the rate of common labor or the compensation to judges or school teachers, he can utilize the values of the latter commodities as standards of comparison.

At best, all that one can reasonably convey to a second person or reader is a hazy impression. Nothing more is scientifically possible. As between time periods of any considerable distance, the complements of available goods are so different, the nature of the society so variant, and the mode of expressing values in terms of monetary units so divergent, that one is justified in saying no more than that the alteration in value is roughly of such and such a magnitude. An assertion that pretends to greater accuracy must be essentially fraudulent.

In summary the problem is as follows:

1. To give a price to an article, even if possible, in modern currency may be hopelessly misleading, because of the changing amounts of purchasing power available to different people.
2. The most feasible scheme is to value an item in only quasi-monetary terms: e.g., units of labor or lengths of service (in, say, a profession) required to purchase it.
3. Even this procedure is useful only for certain staple items (books, bread, &c.) and is misleading, of course, for an over-all view of the standard of living which includes things unknown 100 or 1,000 years ago (automobiles, TV sets, peripatetic vacations), or things whose character has changed completely (clothing, furniture, housing).
4. The danger is that students will imagine that some standard is absolute, whereas it can be, at best, only a vague approximation to comparing two things which are *not* comparable. This is because the standard of living and the things of which it is comprised have changed so much over long time periods (both intrinsically and in the significant relationships to each other) that it is impossible, in the final analysis, to describe in terms of modern values the real "cost" to men in the past of a loaf of bread, let alone a suit of clothing in a style and of a fabric long outdated. For example, foodstuffs have become very much "cheaper" over the last 300 years (and this can be "measured" in terms of hours of work needed to buy a loaf), but the *importance* of bread and butter or meat has declined in terms of proportions of total expenditures; it is almost impossible to measure this new factor *statistically*. In the last resort the standard of living is a qualitative not a quantitative concept.

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RESEARCHING THE ENTREPRENEUR

YUSIF A. SAYIGH

*Director, Economic Research Institute
at American University of Beirut*

Editor's Note:

The questionnaire prepared for use in a recent study of entrepreneurship in Lebanon comprises so broad a probe into the role and functions of the businessman as to have wide potential utility to students. Professor Yusif A. Sayigh, Director of the Economic Research Institute, American University of Beirut, has graciously consented to the reproduction of this questionnaire.

Describing the process of working out the questionnaire, Professor Sayigh writes that in preparing the questions he kept in mind the overall conceptual framework of the study, on the one hand, and, on the other, the interest, level of understanding, mentality, and available time of respondents. Relying heavily upon his familiarity with the national milieu, Professor Sayigh concentrated on framing questions that the respondents could answer honestly, without annoyance at an outsider's inquisitiveness, and with enough precision to render the answers possible of quantification along with the answers of other respondents.

In respect to coverage, Professor Sayigh writes:

I had to decide what questions to choose out of thousands of possibilities. In the end I opted for a questionnaire with wide coverage, though perhaps superficial, against a more profound one with narrower focus, which would not permit me to have a view of the broad field of enterprise.

Another decision I had to make was whether to put more emphasis on the individual — his life history, his idiosyncrasies, his inner drives — or on the combination of respondent-and-establishment: in other words, the choice was between a study of *entrepreneurs* and a study of *entrepreneurship*. I chose the second because of my conviction that my enquiry would be of more relevance to development as I define it in my "Conceptual Framework."

The questionnaire was prepared in English, Arabic, and French, and was accompanied by an introductory letter, which is also reproduced.

. . .

Introductory Letter

AMERICAN UNIVERSITY OF BEIRUT

BEIRUT — LEBANON

Department of Economics
Economic Research Institute

Telephone 30822
Beirut,

The Economic Research Institute of the American University of Beirut is undertaking an academic study of the part that leading businessmen

play in the development of Lebanon. In order to do this we are interviewing a select number of the most prominent businessmen in the country, and your name is one of those on our list.

This study, it is hoped, will greatly help in the understanding of the Lebanese economy and how it functions through the decisions of entrepreneurs in the fields of trade, industry, finance, agriculture, transport, and services. It will also help promote future development through the collection of economic data that will be made available, in aggregate form in the final report, to businessmen and to public bodies interested in the economic affairs of the country.

We would appreciate it very much if you could support the study by giving us an interview within the next few weeks. We will be contacting you shortly in order to know when it would be convenient for you to grant us this interview.

Yours very truly,

Yusif A. Sayigh
Director
Economic Research Institute

Questionnaire

I. INTRODUCTORY: THE ENTREPRENEUR AND THE ESTABLISHMENT

A. Personal Information

1. Name of respondent
2. Position (or title) in Establishment
3. Date of birth
4. Place of birth (Specify village, city, country)
5. Marital status: Single Married Separated
 Divorced Widowed
6. If married, number of children
7. If respondent not sole owner of Establishment, name of owner(s)
(unless Establishment is a corporation)

B. The Establishment

1. Registered name of Establishment
2. Date of founding of present Establishment
3. Date at which respondent took office
4. Has Establishment changed ownership? (if not corporation)
Yes. No.
5. If yes, specify change

C. Field of Activity

1. What line(s) of business is Establishment engaged in?
(Check one or more)
 - a. Agriculture
 - b. Industry

- c. Construction and real estate
- d. Trade
- e. Finance
- f. Transport
- g. Other Services
- h. Other (specify)

2. What product(s) (goods or services) does Establishment produce or offer?
3. List other Establishments, in Lebanon and outside, in which you have direct participation as partner or member of board of directors or out-right owner, and indicate nature of participation:

Establishment

Nature of Participation

- a.
- b.
- c.
- d.
- e.

4. What is the peak number of employees in the Establishment?
Staff Labourers

D. Form of Ownership

1. What is the form of ownership of the Establishment?
 - a. Individual proprietorship
 - b. Partnership of the "nom-collectif" type
 - c. Partnership of the "société en commandite - simple" type
 - d. Partnership of the "société en commandite - par action" type
 - e. Corporation (Société anonyme)

E. Capital and Finance of Establishment

At founding

Now

1. State the nominal, registered capital:
2. Paid-up capital
3. How was capital (or finance) raised? (Check one or more)
 - a. Resources of owner(s)
 - b. Borrowing from relatives
 - c. Borrowing from other individuals
 - d. Borrowing from banks
 - e. Sale of stock (or subscription stock)
 - f. Sale of bonds
 - g. Other (specify)
4. If part or all of capital came from owner's resources, was that from another business? Yes. No.
5. If yes, specify sector or sectors
6. If from owner's or family resources, but not from another business, indicate source or sources (Check one or more)
 - a. Sale of property
 - b. Gift from parents
 - c. Inheritance
 - d. Other (specify)

II. FORM AND LOCUS OF ENTREPRENEURSHIP

A. Entrepreneurial Function

1. As the person taking important decisions in the Establishment, what do you conceive your function or functions to be: (Check the four most important, in that order)
 - a. Conception of the idea of the business
 - b. Designing the process of operation
 - c. Designing the organization (administration of various processes of production, marketing, research, etc.)

- d. Provision of capital
 - e. Setting up of Establishment
 - f. Choice of product(s) to produce or offer
 - g. Employment of resources (human and material) and their coordination
 - h. Technical decisions (choice of machines, processes, etc.)
 - i. Decisions regarding selling policy and methods, and advertising
 - j. Price fixing and quantity fixing
 - k. Finding new markets and setting up of branches
 - l. Management of Establishment
 - m. Termination of business
 - n. Other (specify)
2. What is the innovation you have introduced into the Establishment, or for which you created the Establishment?

B. Locus of Entrepreneurial Responsibility

1. Are there employees in the Establishment who make entrepreneurial decisions? Yes. No.
2. If yes, indicate his (their) title(s) and functions:
- | Title | Function |
|-------|----------|
| a. | |
| b. | |
| c. | |
| d. | |
3. If your authority itself is jointly shared, indicate who by:
- a. Partner(s)
 - b. Board of directors
 - c. Creditors
4. What are the powers of the person(s) sharing authority with you?
- a. Joint decisions
 - b. Veto power
 - c. Power to decide when issue is of a certain magnitude
 - d. Power to decide in certain areas on the basis of divisions of labour
 - e. Other (specify)
5. Is the administration divided into sections or departments on the basis of different areas of operation? Yes. No.
6. If yes, please check which of these:
- a. Production (including technical section)
 - b. Marketing (including advertising)
 - c. Administration (including personnel)
 - d. Finance
 - e. Research
 - f. Other (specify)
7. Does your Establishment have any independent branches, or branches that constitute an integral part of the operations of the Establishment? Yes. No.
8. If Establishment is either a principal or a branch, define the limits of your authority vis-à-vis the branches or the principal, as the case may be:

III. ORIGINS AND MOBILITY OF ENTREPRENEURS AND OF ENTREPRENEURIAL IDEAS

A. Entrepreneur's Background

1. Give a brief history of your education:

- | | | |
|-----------------|------|----|
| a. School | From | To |
| Degree obtained | | |
| b. School | From | To |
| Degree obtained | | |
| c. School | From | To |
| Degree obtained | | |

- d. School From To
 Degree obtained
 (N.B. School means school or university. Please indicate location of institution.)
2. What is your present nationality?
 3. What was your father's original nationality?
 4. If you are of non-Lebanese origin:
 - a. From which country did you emigrate?
 - b. When did you emigrate?
 - c. Under what circumstances did you emigrate? (That is, reasons for leaving)
 - d. What made you choose Lebanon?
 5. What is (was) your father's business or occupation?
 6. Is there a tradition in the family to run that type of business (or career)? Yes. No.
 7. If yes, since when? (For how many generations?)
 8. What are (were) your father's important sources of income?
 - a. b.
 - c. d.
 9. Did you work for another entrepreneur before? Yes. No.
 10. If yes, who?
 11. Date at which you started business as entrepreneur (any business)
present business

B. Origin of the Entrepreneurial Idea

1. Did you have any training (other than school education or on-the-job training), for any profession, occupation, craft or business? Yes.
No.
2. If yes, state:
 - a. Type of training
 - b. Place of training
 - c. Duration of training years, from to
3. Did you travel outside Lebanon or Syria (or outside your country of origin if not of Lebanese or Syrian origin) before starting your present business career? Yes. No.
4. If yes, state:

Places travelled to	Duration of trip (and year if possible)	Purpose
a.		
b.		
c.		
d.		

(N.B. The purposes are education, recreation, business experience, or some other purpose to be specified by you)
5. Which of your different experiences have in your valuation proved most useful for your present career? (If more than one, rank them)
 - a. Education
 - b. Training (other than in school)
 - c. Travel
 - d. Experience
 - e. Other (specify)
6. How did you get the idea of establishing (or acquiring or entering) your present business (or, if you are a salaried executive or merely a shareholder, of taking over entrepreneurial responsibility)? (If more than one, rank them)
 - a. Through education
 - b. Through training (and experience)
 - c. Through travelling
 - d. Through contacts with other businessmen

- e. Through the influence of a close relative
 - f. Through accident (being born into the business, or inheriting it)
 - g. Through own interest or initiative or inventiveness
 - h. Other (specify)
7. Where did you acquire most of your business experience?
- a. In Lebanon (and/or Syria)
 - b. In another country (specify)
8. Were the goods or services which your business produces or offers produced or offered in Lebanon before you started business? Yes.
No. Some yes and some no. (Remarks:)
9. On what did you base your decision to introduce into Lebanon the goods or services, or the special processes, characterizing your Establishment – given the element of risk involved in such an introduction? (Check one or more)
- a. Acquaintance with conditions in other countries
 - b. Acquaintance, through trade, with the goods you now produce – which encouraged you to shift from importation to production
 - c. Encouragement received from foreign technicians consulted
 - d. Change in circumstances in Lebanon making such business promising
 - e. Mere adventurousness on your part
 - f. Availability of resources, and acquaintance with processes, required
 - g. Suitability of the goods or services to conditions of the Lebanese economy
 - h. Other (specify)
10. Was there encouragement, objection, or indifference from your close social group to your choice of business career? Encouragement
Objection Indifference (Remarks:)
11. If there was objection, on what grounds was it based?
12. In your opinion, if you were to start the same career today, would you meet with the same objection from your close social group? Yes.
No.

C. Mobility of Entrepreneurs

1. Were you in another business career(s) before the present one? Yes.
No.
2. If yes, what was it (or what were they)?
3. If yes, what made you change (i.e., discontinue your old activity or add to it)? (Check one or more)
- a. Greater profit in present career
 - b. More social prestige
 - c. More power
 - d. Greater security (more "future")
 - e. Better acquaintance with new field of activity
 - f. Other (specify)
4. Do you plan to make another shift (or a new one, if you have made none yet)? Yes. No. It depends.
5. If no, why? (Check one or more)
- a. Satisfaction with present activity while wishing to improve it
 - b. Desire not to change
 - c. Belief that other businesses do not have as good a future or as much security
 - d. Inability to handle other business
 - e. Inability to raise any necessary additional capital
 - f. Other reasons (specify)
6. If yes, do you plan to leave present business altogether? Yes.
No.
7. If yes, into what other field of activity do you intend to go? (Specify)
- a. Agriculture
 - b. Industry

- c. Construction and real estate
 - d. Trade
 - e. Finance
 - f. Transport
 - g. Other services
 - h. Other (specify)
8. If yes, are you waiting first for the satisfaction of one or more conditions? (Check one or more)
- a. Obtaining a special type of knowledge or experience
 - b. Finding the necessary capital
 - c. Waiting for the market to develop for the goods or services of the new business
 - d. Waiting for certain ancillary industries or services to emerge first
 - e. Waiting for appropriate changes in the tariff and taxation systems
 - f. Waiting for the necessary labour skills to develop
 - g. Waiting for a more appropriate political climate
 - h. Other (specify)
9. Do you believe it advisable for businessmen in Lebanon to invite participation of non-Lebanese entrepreneurs who have new entrepreneurial ideas? Yes. No. (Remarks:)
10. Would you personally invite such participation in case you felt you needed to supplement your own ideas in an area of enterprise with which you are not fully familiar? Yes. No.
11. What would your attitude be if these entrepreneurs were non-Lebanese Arabs or non-Arabs?
- a. Same attitude
 - b. Preference for non-Lebanese Arabs
 - c. Preference for non-Arabs
12. Under what conditions, if any, would you be in favour of the government facilitating the entry of non-Lebanese entrepreneurs?

IV. TYPES AND QUALITIES OF ENTREPRENEURS

1. Why did you choose your present career? (Check one or more)
- a. Natural inclination
 - b. Urging by elders
 - c. To contradict such urging
 - d. To follow up father's business career
 - e. To avoid father's business career
 - f. Pecuniary profit considerations
 - g. Prestige
 - h. Other (specify)
2. If you were to choose afresh a new career, would you go into the one you now have? Yes. No.
3. If no, what other career would you choose?
4. As you know, different lines of business involve different intensities in capital investment, different rates of turnover, different periods of waiting before returns begin to flow in, and different degrees of rigidity of investment. With this in mind, indicate your preference(s) among the following situations.
- a. Undertakings involving heavy investment and considerable waiting before returns begin to flow in, but promising a long period of flow
 - b. Undertakings involving relatively little investment, a short time to establish, and a quick capital turnover
 - c. A small profit margin per unit on a large volume of business
 - d. A large profit margin per unit on a small volume of business
 - e. Other (specify)
5. In taking major decisions, do you mainly:
- a. Make up your mind independently and without consultation with friends or subordinates whose opinion you are not required to take?

- b. Consult friends (including close relatives) but not subordinates?
 - c. Consult subordinates but not outsiders?
 - d. Consult both subordinates and friends?
 - e. Consult experts outside the Establishment?
 - f. Other (specify)
6. In taking a major decision, do you
- a. Base yourself more on thorough calculation and statistical evidence?
 - b. Rely more on your perception and your "feel" of a situation?
7. Do you:
- a. Have a double entry (debit and credit) system of bookkeeping? Yes.
No.
 - b. Use cost accounting? Yes. No.
 - c. Engage the services of certified external auditors? Yes. No.
 - d. Use budgeting and financial planning? Yes. No.
 - e. Use any or all of the above because you believe in the value of these professional processes, even if there were no legal obligation on you to use them?
Yes. No.
8. Do you think that research institutions (economic, engineering, agricultural, etc.) render a valuable service to business? Yes. No.
9. If yes, will you be ready to support them by asking them to make studies for you at a fee? Yes. No.
10. Do you carry personal insurance? Yes. No.
11. Is the Establishment insured at all? Yes. No.
12. If yes, indicate the types of insurance carried for Establishment

V. THE ENTREPRENEUR AND HIS ENVIRONMENT

A. The Economic Factor

1. How would your Establishment be affected by the readiness of the market for a new product that is a substitute for the one you produce or trade in, and one that is seemingly a more promising product?
 - a. Shift as soon as possible to the new product regardless of the risk involved
 - b. Wait until the new product proves its profitability before making a decision
 - c. Undersell competitors, or otherwise weaken the prospects of the new product
 - d. Take some other attitude (specify)
2. How will your business be affected by the introduction of a new process (or machine) that is technically superior to the one you use now?
 - a. Will you shift as soon as possible to the new process?
 - b. Will you keep your own process but make up for your higher cost through acceptance of a smaller profit margin?
 - c. Will you search for another process that is superior both to your own and to the one in competition with it?
3. Before deciding to shift to the new process, if you do, what calculation do you make? Describe briefly:
4. If normally you are not inclined to make such shifts, what are your reasons? (Check one or more)
 - a. Learning new know-how is disagreeable
 - b. Shifting involves great loss in existing installations
 - c. Shifting involves you in new and costly capital investment
 - d. Shifting is not usually economical
 - e. You do not like change
 - f. Other (specify)
5. How do you conceive of yourself as reacting to a situation of general economic prosperity? (Check one or more)
 - a. By increasing the volume of business slightly so as also to obtain a rise in the profit margin per unit
 - b. By substantially increasing volume even to the point of reaching a smaller profit margin per unit than before

- c. By keeping the same volume of business, but making a much larger margin of profit per unit
 - d. By going into another business but keeping the present one as it is
 - e. By expanding the present business (in capital and outfit)
 - f. Other (specify)
6. If you were to decide to expand your business, what would your preference be as to the source(s) of finance?
- a. Present partners or shareholders (as the case may be)
 - b. New partners or shareholders
 - c. Borrowing from banks
 - d. Borrowing from others
 - e. Own sources of funds (outside Establishment)
7. If you were to decide not to expand, would that be because of:
- a. Lack of capital funds?
 - b. Fear that prosperity may be short-lived?
 - c. Feeling that you cannot handle a large business without sharing your authority with someone else?
 - d. Other reasons (specify)
8. How do you conceive of yourself as reacting to a situation of general depression? (Check one or more)
- a. Contract your business (close down part of the business and dismiss some of the workers)
 - b. Try to keep same volume of business even at a much lower price and profit
 - c. Try to keep same volume of business even if that meant a loss for some time
 - d. Other (specify)
9. If you decided not to contract during the early stages of a crisis or a depression, would that be because:
- a. You will expect an improvement in business conditions?
 - b. It is hard for your prestige to contract unless it cannot be helped?
 - c. It is very costly to lay off employees under present labour laws?
 - d. Other reasons (specify)
10. Which of these types of uncertainty influence you most in your entrepreneurial decisions? (Rank in order of importance)
- a. Uncertainty deriving from political conditions (discontinuity of policy, arbitrary change of policy, nepotism, etc.)
 - b. Uncertainty deriving from changes in tastes and markets and the inability to tell the future of demand
 - c. Uncertainty deriving from frequent changes in tariffs or taxes
 - d. Uncertainty deriving from technical change
 - e. Uncertainty deriving from changes in the costs of inputs
 - f. Other (specify)
11. Which of the following possible reactions do you consider a satisfactory protection against uncertainty? (Check one or more)
- a. Choosing businesses involving little capital investment and yielding quick profit
 - b. Choosing businesses not highly specialized in which you are able to make easy shifts between products and processes
 - c. Choosing businesses producing several products in which diversity provides some sort of insurance
 - d. Having more than one business interest spread geographically or sectorially
 - e. Engaging the services of professional consultants to enable you to be on the alert to face technical and market uncertainties
 - f. Other (specify)
12. Given normal conditions in Lebanon (as in 1955 and 1957) which of the following factors do you consider favourable to the expansion of your business, which unfavourable, and which indifferent? (Mark "F" for favourable, "U" for unfavourable, and "I" for indifferent)
- a. Salary and wage level
 - b. Interest rates
 - c. Tax system
 - d. Tax level
 - e. Tariff rates
 - f. Labour law
 - g. Other (specify)

13. Do you think there are enough credit facilities in Lebanon for investment purposes or operational purposes in your field of business?
Yes. No.

14. If no, which of these types of credit are most urgently needed?

- a. Short-term credit (under one year)
- b. Medium-term credit (1 to 5 years)
- c. Long-term credit (over 5 years)

B. The Social and Political Factor

1. What course in life did your father (or the person responsible for your upbringing) most insistently want you to follow?

2. Why?

3. What are the qualities you most require in your business associates, i.e., your partners or senior staff? (Check one or more)

- a. Honesty, even if they are not very shrewd businessmen
- b. Shrewdness, even if they are not very honest (provided, of course, your own business was not the victim of their attitude to honesty)
- c. Hard work
- d. Ability to get along well with people (that is, being good public-relations men)
- e. Influence in government circles
- f. Technical efficiency in your line of business
- g. Being a close relative of yours
- h. Not being a close relative
- i. Willingness to take orders or suggestions readily
- j. Independence and ability to operate without your orders or guidance
- k. Other (specify)

4. What specific action do you think the government ought to take which would be of benefit to your business? (Indicate one or more)

- a. Issue laws to regulate and organize your field of business so that potential competition may be reduced
- b. Invest in social overhead capital and public services likely to benefit your business
- c. Raise custom tariffs on competitive goods
- d. Reduce custom tariffs on raw materials and equipment needed by your business
- e. Control labor organizations in order to restrict their power to obtain higher wages
- f. Lower taxes
- g. Help you export through trade agreements, fairs, marketing facilities, subsidies
- h. Treat all businessmen without differentiation and favoritism and apply laws rigorously
- i. Base all legislation and policy on more study
- j. Consult the business community regularly and seriously prior to business legislation
- k. Other (specify)

5. Do you think it advisable or useful for a businessman to devote some of his time and efforts to politics, given Lebanese conditions? Yes. No.

6. If yes, what form should such participation in politics take?

7. Do you associate closely with other businessmen who have the same interest in pressing government to follow (or parliament to legislate) certain policies appropriate to your business? Yes. No.

8. Do you think that a greater degree of central planning involving more government control of economic affairs would:

- a. Help businessmen in Lebanon?
- b. Harm businessmen in Lebanon?
- c. Promote development generally?
- d. Retard development generally?
- e. Other (specify)

9. What are your suggestions for raising the level of technical knowledge in your field? (Check one or more)

- a. Technical training and research in government institutions

- b. Technical training and research in private educational institutions
 - c. Technical training and research in institutions established for the purpose by the business community
 - d. Sending students and other trainees abroad for training
 - e. Bringing foreign scientists and technicians for training nationals on the job
 - f. Other (specify)
10. Given equality of training and readiness to work for about the same salary, whom would you choose to work for you if you needed only one technician?
- a. A non-Arab technician
 - b. An Arab non-Lebanese technician
 - c. A Lebanese technician
11. Why would you make such a choice?
12. Do you feel there is a shortage of able managers in your field of business in the country? Yes. No. Don't know.
13. If yes, what would you recommend to meet the shortage?
- a. Training of managers on the job
 - b. Training them in technical and educational institutions
 - c. Hiring foreign managers
 - d. Other (specify)
14. Do you think there are enough able foremen or supervisors to communicate between management and labour (i.e., to play the role of business sergeant-majors between the officer class and the rank and file)? Yes. No. Don't know.
15. Do you believe the presence of foremen or supervisors
- a. Necessary for efficient operation?
 - b. Unnecessary because their function is not significant?
 - c. Necessary, but their function of communication of orders, establishing discipline, and supervising work can be performed by you or the manager?
 - d. Depends on the size of business?
16. Do you think there are under present conditions enough technicians and skilled workers in the country for your type of business? Yes. No. Don't know.
17. Do you provide for the training of personnel in your organization apart from the training they acquire on the job? Yes. No.
18. What is your favourite policy with regard to other establishments producing (or offering) the same products (or services) as yours and likely to be a business threat to yours or close substitutes of yours? (Check one or more)
- a. Coming to terms with them regarding operations
 - b. Just ignoring them in the belief that there is room for you both
 - c. Trying to force them out of the market by buying them out
 - d. Trying to force them out of the market by underselling them
 - e. Trying to force them out by developing better distribution services
 - f. Trying to form them out by improving quality and service
 - g. Trying to force them out by reducing own costs
 - h. Other (specify)
19. What, in your opinion, will lead to faster development in the country?
- a. A mainly competitive structure of business (involving numerous establishments, with none very large, in every field of business)
 - b. A mainly monopolistic structure or one of restricted competition (involving a relatively small number of establishments, in every field of business)
 - c. A mainly government-operated structure
20. Are you in favour of concessions of a monopolistic nature granted by the government to individual businessmen or corporations to develop large projects of a public utility nature? Yes. No.

VI. THE MOTIVES OF THE ENTREPRENEUR

1. It has been stated that the entrepreneur is the factor that gets the most handsome reward or the most ruthless punishment in the enterprise system, depending on whether he succeeds or fails in business. True? False?
2. Which, in your opinion, are the *three* most powerful motives in business (listed in their order of importance) in the following list?
 - a. Pecuniary profit
 - b. Power
 - c. Prestige and status
 - d. Sense of achievement
 - e. Satisfaction in expansion in one's business
 - f. Philanthropy and social service through one's money
 - g. Other (specify)
3. What is the minimum range of net profit rates per annum you consider adequate for your investment? to per cent.
4. Would you move your investment out if your profit dropped below the lower end of that range? Yes. No.
5. If no, at what lower rate would you consider the necessity of moving out? per cent.
6. What are the factors you would consider before withdrawing (if you decide to withdraw) your investment from the Establishment in case that lower rate of profit persisted?
7. What do you consider the surplus remaining after the deduction of total costs from total revenue?
 - a. Profit
 - b. Salary
 - c. Interest
8. Do you believe it advisable for an Establishment to have as head a man who does not own a part of its capital? Yes. No.
9. What determines your choice of size and capacity of the business? (Check one or more)
 - a. Efficiency of size chosen
 - b. Availability of capital
 - c. Size of market
 - d. Availability of raw materials (inputs)
 - e. Availability of skilled labour and personnel
 - f. Nature of product
 - g. Your ability to cope with the size chosen
 - h. Other (specify)
10. Have there been large changes in the size of the Establishment since you assumed responsibility in it? Yes. No.
11. If yes, were these changes ones of:
 - a. Expansion?
 - b. Contraction?
12. In trying to promote your sales, do you mainly:
 - a. Catch up with changes already occurring in consumers' tastes by studying market conditions and following the whims of the market?
 - b. Influence tastes by advertising, demonstration, distribution of free samples, etc.?

VII. REJUVENATION OF THE ENTREPRENEURIAL SPIRIT

1. Do you usually visit fairs where technical advances are exhibited?
Yes. No.

2. Do you subscribe to technical journals or buy technical books (for yourself or your staff) to keep up with such advances?
Yes. No.
3. Have you ever tried, or do you plan, to evolve new methods or processes inside your business? Yes. No.

VIII. MANIFESTATIONS OF SUCCESS IN ENTREPRENEUR'S OPINION

1. In your opinion, what manifestations constitute entrepreneurial success? (Check four or less)
 - a. Large profits
 - b. A certain type or size of wealth
 - c. Expansion in the business one operates
 - d. Branching off into other fields of activity
 - e. Assurance of continuity in the business
 - f. Increase in product variety
 - g. Introduction of important technical improvements
 - h. Change of form of business organization (from partnership to corporation, for example)
 - i. Improving product quality, without expansion in size of business
 - j. Helping entrepreneurial talent emerge, that is, seeing ex-employees or associates emerge as entrepreneurs on their own (thanks to training or experience gained in your business)
 - k. Other (specify)
2. Do you plan to retire from business at some future date? Yes.
No.
3. If yes, at what age?
4. What do you intend to do after retirement?
5. Have you already any plans for the handing over in due course of your functions and responsibility? Yes. No.
6. What would you rather your son (or heir) did, even if he is already established?
 - a. Continue with the business you are in
 - b. Move into another business
 - c. Leave business altogether
 - d. Take up a profession
 - e. Go into government or politics
 - f. Emigrate from Lebanon
 - g. Other (specify)
7. Do you hold (or have you held) any unpaid position of significance in the field of social service? Yes. No.
8. What are the most notorious failings in others which you try to avoid? (Check four or less)
 - a. Ostentation in spending
 - b. Ostentation in investment
 - c. Participation in politics
 - d. Aloofness from politics
 - e. Long holidays
 - f. Short (or even no) holidays
 - g. Quick expansion of business
 - h. Contraction of business
 - i. Stagnation at same size of business
 - j. Branching off into other fields of business
 - k. Concentration on one field of business
 - l. Career inconsistency
 - m. Lack of planning
 - n. Other (specify)

KATHARINE WOODRUFF MEMORIAL

An endowment has been established for an Annual Exhibition in Economic History at the University of Melbourne, to be known as the Katharine Woodruff Exhibition. Friends and colleagues of Professor Woodruff who wish to participate in the memorial can do so by forwarding their contribution to L. Goldberg, G. L. Wood Professor of Accounting, University of Melbourne, Victoria, Australia, or direct to the Vice-Chancellor of the University.

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GERMAN EDITION OF AMERICAN PUBLICATION

FRITZ REDLICH, "Anfänge und Entwicklung der Firmengeschichte und Unternehmerbiographie," Beiheft 1 of *TRADITION* (Baden-Baden, 1959), 81 pp.

In September, 1952, the *Bulletin of the Business Historical Society* published as a Supplement to its Volume XXVI a piece by Fritz Redlich entitled "The Beginnings and Development of German Business History." *TRADITION*, the German business history quarterly, has now published a German version of this study — equivalent to a second edition, enlarged and improved as of fall, 1959.

In all essentials, the German edition is identical with the original American one. A survey has been added (on page 9) of the existing literature in all languages dealing with the principles and methods of business history. This survey lists the following works:

FOR EUROPE:

H. Klompmaeker, "Business History" in *Tijdschrift voor Geschiedenis*, LXII (1949), 358 ff.

Fritz Redlich, "American Business History" in *Vierteljahrschrift für Sozialund Wirtschaftsgeschichte*, XXXVIII (1949/51), 247 ff.

Wilhelm Treue, "Firmengeschichte" in *Historische Zeitschrift*, CLXXVII (1951/52), 535 ff.

—, *idem*, "Die Bedeutung der Firmengeschichte für die Wirtschafts- und Allgemeine Geschichte" in *Vierteljahrschrift für Sozialund Wirtschaftsgeschichte*, XLI (1951), 42 ff.

—, *idem*, "Eine Zeitschrift für Firmengeschichte und Unternehmerbiographie" in *Tradition*, I (1956), 1 ff. Englisch u. d. T. "A Journal for Company Histories and Entrepreneurial Biography," in *Business History Review*, XXXI (1957), 323-336.

Ludwig Beutin, "Was erwartet die Wissenschaft von Firmengeschichten," in *Tradition*, I (1956), 62 ff.

Walther Däbritz, "Wirtschaftsbiographische Forschung in Rheinland-Westfalen" in *50 Jahre Rheinisch-Westfälisches Wirtschaftsarchiv zu Köln* (1957), 43 ff.

Asa Briggs, "Business History" in *Economic History Review*, IX (1957), 486 ff.

FOR AMERICA:

N. S. B. Gras, "Why Study Business History?" in *Canadian Journal of Economics and Political Science*, IV (1938), 320 ff.

—, *idem*, "Are You Writing a Business History?" in *Bulletin of the Business Historical Society*, XVII (1944), 73 ff.

- Arthur H. Cole, "An Approach to the Study of Entrepreneurship . . ." in *Journal of Economic History*, VI (1946), Supplement, 1 ff. Der Aufsatz ist auch separat erschienen und wiederabgedruckt in Frederic C. Lane and Jelle C. Riemersma, *Enterprise and Secular Change* (Homewood, Illinois, 1953), 181 ff.
- Henrietta M. Larson, "Business History: Retrospect and Prospect" in *Bulletin of the Business Historical Society*, XXI (1947), 173 ff.
- Richard C. Overton and Ralph W. Hidy, "Problems in Writing the History of Large Business Units" in *Bulletin of the Business Historical Society*, XXII (1948), 4 ff.
- Ralph W. Hidy, "Problems in Collaborative Writing of Business History" in *Bulletin of the Business Historical Society*, XXIII (1949), 67 ff.
- Thomas C. Cochran, "Entrepreneurial History" in *Bulletin of the Business Historical Society*, XXIV (1950), 113 ff.
- Henrietta M. Larson, "History of Business Administration and Operation" in *Bulletin of the Business Historical Society*, XXIV (1950), 120 ff.
- Fritz Redlich, "The Role of Theory in the Study of Business History" in *Explorations in Entrepreneurial History*, IV (1951/52), 135 ff.
- R. Richard Wohl, "The Significance of Business History" in *Business History Review*, XXVIII (1954), 128 ff.
- James H. Soltow, "The Business Use of Business History" in *Business History Review*, XXIX (1955), 227 ff.
- Donald E. Stout, "Are Business History and Economic Theory Compatible?" in *Business History Review*, XXIX (1955), 285 ff.
- Arthur H. Cole, "A History of Business in the United States" in *Business History Review*, XXXII (1958), 451 ff.

On page 64 information is added on the earliest publications of German medieval business historical source material. A major error in the American edition has also been put right. When the study was first published, the author was not aware of what now appear to have been the two earliest German entrepreneurial biographies. One was written by a Silesian theologian and school principal, Gottlieb Glauber (1755-1804), about the Westfalian Peter Hasenclever. The latter is well known to American economic historians because of his influence on the early development of the American iron industry. After a failure in this country, he became a Silesian linen merchant. The item was published in 1793 in installments in a periodical and in 1794 re-issued as a privately printed book. This earliest German entrepreneurial biography was followed in 1805 by a very weak one of a few pages on the Augsburg textile industrialist, Johann Heinrich Schüle. It was written by Franz Eugen Freiherr von Seida und Landensberg (1772-1826), a French and later Bavarian civil servant (see pages 36, 37). The German edition further enlarges the survey of existing business historical periodicals of all countries (pages 53, 54); hardly any of these existed when the booklet was first written in English. Finally, the section on business archival material and its preservation (pages 58 ff.) has been built up through the cooperation of the archivists of the *Deutsche Industrieinstitut* in Cologne.

The fact that an item originally published by the Business Historical Society has now been considered worthy of translation speaks for the value of the endeavors of the Society which pioneered in our field.



BOOK REVIEWS

Beard, McDonald, and Economic Determinism in American Historiography

A Review Article

by Peter J. Coleman

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Within the past three years, and after a delay of almost half a century, two full-scale investigations of Charles A. Beard's *An Economic Interpretation of the Constitution of the United States* have made their appearance. Using dissimilar methods of examination, and relying on different kinds of material, both Robert E. Brown and Forrest McDonald conclude that Beard's ideas are spurious.¹ It is curious that a full generation of historians should have come and gone without pausing to plumb such a striking innovation in American historiography, and that a book, which the author admitted to be fragmentary, could exert such a profound influence upon the historical profession. Why was the Beard thesis allowed to stand so long unchallenged? Why have historians converted his tentative suggestions into dogma?

Three generations ago, when the traditional view of history as a consecutive narrative of public events was being passed on from the Bancrofts, Palfreys, Hildreths and Tuckers to the Parkmans, Rhodes, Roosevelts, and Schoulers, a new breed of historians, deeply touched by the virtue of scientific method and inspired by the German example, was beginning to grow restless. But if the Adamases, Von Holsts, and Winsors strove to apply meticulous standards of scholarship to their craft, and if they succeeded in giving a professional status to the writing and teaching of American history, like their predecessors they were absorbed primarily in political and constitutional history, and celebrated their objectivity in works of the largest possible canvas. Yet their preoccupation with institutional history, more especially with the evolution of America from its

¹ Robert E. Brown, *Charles A. Beard and the Constitution: A Critical Analysis of "An Economic Interpretation of the Constitution"* (Princeton, 1956); Forrest McDonald, *We the People: The Economic Origins of the Constitution* (Chicago, 1958).

distant European seed bed, provided the milieu in which others of a more speculative bent could seek to open challenging new paths of investigation. Thus, towards the end of the nineteenth century, and particularly at the time of the First World War, American historiography became increasingly influenced by two competing forces. On the one hand, scholars like Turner and Beard utilized the newer disciplines — anthropology, economics, geography, political science, and sociology — to advance exciting works of synthesis and speculation. Reflecting the temper of their times, they sought in history evidence of the uniqueness of the American spirit, or of the underlying economic forces that had shaped the republic's growth. On the other hand, some historians rejected immediate synthesis. Instead, they responded to the challenge of the emerging social sciences by deferring interpretative works until sufficient data had been collected.

This division advanced American historiography along two fronts. The Turnerians, for example, have accepted the challenge to investigate the significance of the frontier in American history by seeking confirmation of the thesis, while other scholars have branched off in such directions as social, economic, entrepreneurial, and intellectual history. Each of these latter diverging disciplines has spawned its own separate sub-systems; the social historian may examine religious, legal, or educational history, he may become absorbed in folkways, legends, charity and philanthropy, or he may turn instead to the study of the temperance movement and the struggle for women's rights.

Yet if these two basic approaches have carried historians into apparently sharply opposed camps, there has always been at least one theme that they have had in common, the willingness to reach premature generalizations. Just as the Turners and the Beards began with an idea which allowed them to impose an imaginative synthesis upon American history before a problem had been adequately investigated, so in the fields of social and economic history there soon appeared comprehensive studies like Caroline Ware's analysis of cotton manufacturing in New England, Arthur H. Cole's history of the woolen industry, W. W. Sweet's survey of American religious history, and G. M. Stephenson's evaluation of the immigrant in American life. For these pioneer works we have cause to be grateful, but because they opened new fields they drew upon only a limited amount of specialized research. The result in each case (the synthesis revolving around the idea, or the comprehensive survey of segments of American history) has been the development of the broad outline, the framework, into which subsequent monographs, wittingly or unwittingly, have been fitted. Courses, replete with textbooks, have been developed around these themes, both undergraduate and graduate students absorb them in their training, dissertations are couched in their terms, and research projects are judged against the larger background that has been laid down. And publishers, whether at university presses or commercial houses, appraise the market for manuscripts with an eye to salability to a professional and lay audience conditioned to approach the literature of American history merely as the unfolding and elaboration of themes already formulated half a century ago.

Had either of these two approaches to American history generated a

lively and continuing academic debate, the consequences might have been less serious. But there has rarely been in American historiography the kind of intellectual ferment kindled among scholars of European history by controversies over such questions as the darkness of the "Dark Ages," the Pirenne thesis, the meaning of the European revolutions of 1848, or the Weber-Tawney theses concerning the relationship of protestantism and the emergence of capitalism. More than this, apart from men like the Bancrofts and their successors, and apart from what is all too often mere sentimentality, history has counted for little in shaping the collective consciousness of the American people, or in determining their attitudes toward public policy. Indeed, it has been only in rare instances that American scholars have served as spokesmen for particular points of view or have been influential either in shaping public attitudes or legislative programs. The examples that come most easily to mind, William Graham Sumner, John Commons, or Richard T. Ely, were sociologists and economists rather than historians. There has never been an American equivalent of a Whig interpretation to evoke vigorous national debate over the shape and meaning of the nation's past, and one searches almost in vain for an American Savigny to stamp a conservative, aristocratic view of jurisprudence upon the legal system, or for an Aulard to occupy a municipally endowed chair of history at the Sorbonne to defend the republican tradition against the attacks of both the Bonapartists and the Royalists.

For what has there been in the Turner thesis, for example, to evoke national debate? Some scholars, particularly in the East, may have been affronted by the elevation of the West to the central role in influencing the nation's history, but the public as a whole, so far as it has been made aware of the thesis at all, has been attracted rather than repelled by Turner's attempt to isolate the spark of uniqueness that sets America apart from its European source. And the modicum of argument that has arisen has turned upon such semantic questions as the ambiguities in Turner's writings, or on what Turner really meant to say, or on what he should have said, or on what he would have said had he been less of a poet and mystic, and so on, ad infinitum. The public, quite properly, would have none of this. There was, of course, little else that scholars could debate, since Turner could be supported or refuted only by declarations of faith. The profession had to wait until his ideas could be explored in works of large compass. Only Turner's adherents chose to do this since his critics, after brushing the thesis aside, busied themselves with problems they believed to be more vital. The Turnerians thereby won a hollow victory. They have convinced themselves of the validity of the frontier hypothesis, they have shaped the thinking of two generations of students, but they have won few converts. Theirs has been a victory by default.²

² For the only full-scale attempt to test the Turner thesis, see, Merle Curti, *The Making of an American Community: A Case Study of Democracy in a Frontier County* (Stanford, 1959). Although it may seem on the surface to be an empirical analysis, Curti's investigation of Trempeleau County, Wisconsin, was conceived in the Turnerian mold. The questions asked as well as the data collected reflected Turner's own approach to historical study. Not unexpectedly, the frontier hypothesis is vindicated. How differently might Trempeleau County appear were wholly different questions posed, or, even better, if data of every conceivable kind were collected before any questions were asked at all. The study of one

The Beardian approach has been no more fruitful; until recently it failed to evoke critical appraisal, and like the Turner thesis, it passed into the mainstream of American historiography virtually without challenge, and certainly without stimulating either scholars or the public to debate its veracity.

While Beard may have traced the intellectual parentage of his idea to Aristotle and Harrington, as well as to Americans like Madison, Webster, Calhoun and Emerson, his thinking was not untouched by Marx and Hegel. Marxian philosophy exerted an important influence upon the intellectual currents of the times in which he grew up as a student and young instructor. And just as Turner reflected the rising spirit of Middle Western nationalism in his frontier thesis, so Beard reflected the skepticism of the early twentieth century in *An Economic Interpretation of the Constitution of the United States*. That Beard was not the first to raise the question of economic determinism in American history is clear. Charles Francis Adams has drawn attention to the idea as early as 1856, while in the same year Richard Hildreth pointed to economic forces in the struggle for ratification of the Constitution. But it was not until the close of the nineteenth century that interest in the role of economic forces began to gather momentum with Woodrow Wilson's brief analysis in 1893 and the somewhat fuller or more dogmatic statements in 1907 and 1911 by J. Allen Smith and A. M. Simons. Thus, the comprehensive study of economic determinism in the formulation and ratification of the Constitution that Beard advanced in 1913, as well as his subsequent injection of economic analysis into the interpretation of other facets of American history, found its inspiration in sources of widely diverse origin.³

Beard's conclusions about the Constitution called forth both praise and criticism, ranging from the adverse comment of public figures like ex-President Taft and Elihu Root to the scholarly disapproval of academicians such as E. S. Corwin, A. B. Hart, and J. H. Latané. Some sections of the press, as well as historians like W. E. Dodd, H. U. Faulkner, and E. W. Spaulding, endorsed the interpretation. And paradoxically, it won the acceptance of Justice Sutherland, who, in January, 1934, justified his dissent in *Home Building and Loan Association v. Blaisdell* on the ground that the Constitution was framed to protect property rights from state interference. Some critics were affronted by the application of socialistic theory to the interpretation of American history, others protested that Beard tended to "reduce everything to a sordid basis of personal interest," while a few charged that he was patently un-American. But if the critics were as sharp in their attacks as the supporters were fulsome in their praise, Beard's writings failed to serve as a catalyst. No historian, whether conservative or liberal, brought forward sharply divergent interpretations for the public's consideration.

The last half-century of European historiography, by contrast, has

jurisdiction in its own terms might have produced results which could have been compared with considerable profit to Turner's conclusions.

³ For a fuller discussion, see, Maurice Blinkoff, *The Influence of Charles A. Beard upon American Historiography* (Buffalo, 1936), pp. 8-11.

been deeply influenced by conflicting philosophies of history, in part because the precision of ideological differences, themselves the product of history, have obliged apologists to utilize historical analysis as a tool in party warfare. There has been in American political life and historiography no comparable reaction to the formulation of the Marxist interpretation of history, and no conscious use of history to buttress party positions. Individuals took offense at Beard's view of historical causation, but neither of the major political parties believed it necessary to defend the Constitution or its framers. Since neither the Republicans nor the Democrats demanded an affirmation of political faith from their adherents, and since neither claimed responsibility for the Constitution, neither considered its position threatened by the Beard thesis. And, in a society in which materialistic considerations seemed to count for much, who could deny that economic forces had been of greater significance in shaping the nation's development than philosophical or spiritual ones?

Although Beard's view of economic determinism has evoked sporadic affirmations of support or opposition, it has embroiled neither the public nor the profession in a continuing intellectual debate. Theodore C. Smith's criticism of Beard's philosophy of history prompted Beard to rise to his own defense in 1934, while at the end of the decade, in 1939, Max Lerner contributed an appraisal of the Beard thesis to the *New Republic*.⁴ In it he made some extravagant claims about the validity of Beard's methodology and spoke of the salutary effect of the thesis in replacing the liberal idealism of historical scholarship with the hard realities of economic causation.⁵ But the brief spate of discussion of such fundamentals as methodology and the philosophy of history in the early 1930's, together with the uncritical adulation reflected by Lerner's evaluation at the end of the decade, are hardly a substitute for a vital professional involvement in the struggle to find an inner meaning in American history. Indeed, one suspects that Beard was more controversial as a person than as a historian. Thus a generation of passive acceptance of Beard's brand of economic determinism, itself the consequence of professional neglect, even apathy, has finally given way in the 1950's to the kind of thorough inspection of the constitution-making process that Beard himself urged should be conducted.

Apart from scattered studies of the process of ratification in the individual states, most of them produced since 1930, there was no attempt to examine the Beard thesis as a whole until the publication in 1956 of Robert E. Brown's critical analysis.⁶ Preoccupied in the main with Beard's methodology, and devoting himself especially to textual analysis and the development of internal contradictions in Beard's study, Brown concludes that Beard was partisan in the selection of evidence, that the

⁴ Compare Charles A. Beard, "Written History as an Act of Faith," *American Historical Review*, Vol. XXXIX (Jan., 1934), pp. 219-229; Theodore C. Smith, "The Writing of American History in America, from 1884 to 1934," *American Historical Review*, Vol. XL (April, 1935), pp. 439-449; Charles A. Beard, "That Noble Dream," *American Historical Review*, Vol. XLI (Oct., 1935), pp. 74-87.

⁵ Max Lerner, "Beard's 'Economic Interpretation,'" *New Republic*, Vol. XCIV (May 10, 1939), pp. 7-11.

⁶ For a bibliography prepared by Jack Froeman and Edmund David Cronon, see Howard K. Beale, ed., *Charles A. Beard: An Appraisal* (Louisville, 1954), pp. 265-286, esp. pp. 284-286.

evidence that he did cite was used uncritically, and that the conclusions that he drew from that evidence were unwarranted. As an alternative to the Beard thesis, Professor Brown advances 14 propositions which he believes might be substituted and which, on fuller investigation, might come closer to a meaningful analysis of the forces underlying the formulation and ratification of the Constitution. In the main, he suggests that "the Constitution was adopted in a society which was fundamentally democratic, not undemocratic; and it was adopted by a people who were primarily middle-class property owners, especially farmers who owned realty, not just by the owners of personalty." Though Brown's analysis raises many and varied doubts about Beard's methodology, as well as the results of his approach to historical investigation, the result is not wholly convincing. It has exposed some serious cracks in the Beardian armor, it has encouraged a spirit of skepticism that may well bear fruit in the future, but since it has relied so heavily upon textual criticism there is the danger that it will provoke only semantic debate.

Forrest McDonald has been no less concerned with methodology but he has also supplied the details which Beard urged were necessary to round out his "fragmentary" study. Yet Professor McDonald has done considerably more. Since for purposes of analysis McDonald has accepted Beard's own system of methodology and interpretation, Beard has been refuted on the ground of his own choosing. Semantic questions cannot any longer be raised in defense of Beard. Chapter by chapter, fact by fact, idea by idea, and conclusion by conclusion, Beard's findings are subjected to a meticulous scrutiny against the background of a staggering array of data compiled from primary sources that Beard rarely used, and collected in a hundred and one different depositories that Beard himself never visited.

The study is divided into four segments. In the first, a short introductory essay, McDonald summarizes the central thesis that Beard advanced, the internal structure of Beard's analysis, and the logical as well as methodological assumptions upon which Beard predicated his investigation. McDonald concludes this section by announcing the procedures by which he proposes to investigate the validity of the Beard thesis. This probing is to be done by asking the questions that Beard himself asked, and by answering these questions within the frame of reference that Beard himself laid down. The innovation, and it is a crucial one, is that the missing details are to be supplied. Should Beard's findings fail to correspond with the facts, McDonald proposes to suggest ways in which more tenable economic interpretations can be investigated. Should economic determinism appear fruitless, other lines of research are to be recommended. In the second segment McDonald scrutinizes the activities of the delegates to the Philadelphia Convention in three ways: the political factions and geographical areas represented at the meeting, the economic interests of the participants, and the voting behavior of the members are subjected to an investigation based on the Beardian theme. A meticulous examination of the ratification process follows; a chapter is devoted to each of the three main categories of states, those generally favorable to the Constitution, those which were divided on the question of ratification, and those in which the predominant sentiment was oppo-

sition to the new instrument of government. Finally, in the fourth section of his study, McDonald tackles three related themes, the validity of the Beard thesis itself, the role of economic interest groups in the process of constitution-making and ratification, and the fruitfulness of economic interpretation as a tool in the investigation of the Constitution.

Like Brown, McDonald concludes that Beard's findings were faulty. But while Brown rests his case primarily upon criticism of Beard's methodology, a methodology that led him to miss or misuse vital evidence, McDonald, although agreeing that Beard's methods were so faulty as to invalidate much of what he said, goes much further by challenging the assumptions upon which Beard predicated his research. Had Beard's research techniques been impeccable, had he used the evidence objectively, and had the evidence supported his conclusions, McDonald believes his study would still have to be discarded as meaningless. Since he attempted to write the history of the late eighteenth century in terms of his own day and age, since the questions that he asked had meaning only for the early twentieth century, Beard, by imposing his own value system upon the problem and the data, asked questions that were utterly meaningless to the Americans of the 1780's. McDonald does not reject the possibility of economic determinism. Indeed, he shows that economic forces played a vital part in the process of ratification. But McDonald's materialistic pressures are pluralistic rather than monistic and they are related to the economic conditions and aspirations of each community of interest within each state. Thus he rejects the idea of a single, consolidated interest group in favor of an analysis which recognizes the multiplicity and diversity of economic forces. They are the product of the unique conditions within each jurisdiction.

The pertinent question is not whether McDonald had made good his criticism but whether the publication of this exhaustive, and in a sense, exhausting, analysis will stimulate a fruitful debate. Is it likely that the generation of students who have absorbed the Beard thesis will read and ponder the McDonald book? How long will it take, assuming for purposes of argument that McDonald is right, before college and high school texts are amended to expunge the Beardian heresy? Like Turner, Beard advanced a simple idea, clothed it with apt phrases, and delivered himself of it in a work of brief compass. It has taken McDonald some 400 closely documented pages merely to dispose of Beard. He indicates that it will take a further two volumes to advance his own interpretation. Is it likely that this trilogy will be read by other than the specialists?

Since neither Turner nor Beard generated intellectual ferment, since neither called forth full-length rebuttals or reappraisals until long after their theories had become respectable, are not the benefits of the stimulus they evoked more than counterbalanced by the disservice they rendered the profession in enticing scholars into fruitless or meaningless investigations? Has American historiography suffered more than it has gained? How much more would we know about the shape of the nation's past had the brilliant lights and shadows that Beard cast not blinded us? This is not to deny the historian's obligation to search for meaning in the past. But it is to suggest that the Beardian kind of synthesis calls for a highly developed sense of responsibility toward the profession.

Does the approach centered around the segmented analysis of significant problems hold out more hope for meaningful interpretation? And will it, in the long run, produce fewer red herrings to divert historians into sterile avenues of research? Clearly the answer must be a qualified one since the danger of premature synthesis is not eliminated. Recent years have seen frequent calls to business historians no less than to students of social, intellectual, or economic history to institute a moratorium on research in order to probe for their larger meaning the mass of specialized studies already accumulated. Indeed, synthesize or perish seems to be the fashion. While business historians may not be in complete accord as to the themes around which synthesis should revolve, they seem, nevertheless, to have concluded that synthesis now is not only feasible but also desirable.⁷

Consider, however, the large number of fundamental questions in the related areas of urban, business, and economic history that have not been investigated sufficiently or, what is even more serious, have not been investigated at all. Although urban history has been attracting increasing attention in recent years, business historians have not been especially conscious of the impact of business upon urbanization, or the influence of urban forces upon business history. More significantly, notice the conspicuous absence of attention to the question of motive power in most studies. Apart from passing attention to the utilization of water power in the early phases of the industrial revolution in the United States, and the recognition of the role of steam power in the transportation revolution after the War of 1812, relatively little emphasis has been placed upon the significance of steam or electricity in the industrialization and urbanization of the United States. Is it appropriate to urge synthesis before these weaknesses have been remedied, or before other outstanding deficiencies have been rectified? One looks in vain for satisfactory studies of the communications industry. Yet one wonders how a meaningful history of American business can be written without an understanding of the contribution of the postal service or the telegraph and telephone industries to economic development. Moreover, few business histories have paid more than fleeting attention to the economics of individual enterprises. Although the number of histories of banks and banking are now almost legion, we know relatively little about which aspects of the banking business have been the most profitable. One speculates that perhaps it was the trust business, or commodity loans, or registrarships. But speculation provides an unsatisfactory basis for synthesis. These, and a host of other questions, remain virtually unexplored.

It is not suggested that scholars hasten to produce full-length treatments of these themes. Rather, by working from the particular to the general, might not a series of case studies in business, urban, and economic history, supplemented by work in the history of technology, pro-

⁷ For such an appeal to social historians, see the report on the remarks of Philip D. Jordan in Oscar O. Winther, "The Fiftieth Annual Meeting of the Mississippi Valley Historical Association," *Mississippi Valley Historical Review*, Vol. XLIV (Sept., 1957), p. 322; for business history, see, Arthur M. Johnson, "Conference on the History of American Business: A Summary Report," *Business History Review*, Vol. XXXIII (Summer, 1959), pp. 204-210.

vide the stuff of which meaningful synthesis can be fashioned? Without studies of this character, and we can all think of other problems that require immediate and exhaustive attention, there will be perpetuated the tendency to fill the vacuum with the engaging but spurious generalizations which result from premature and irresponsible synthesis.

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BUSINESS ENTERPRISE IN ITS SOCIAL SETTING. By Arthur H. Cole. Cambridge, Harvard University Press, 1959. Pp. xiii + 286. \$5.50.

Reviewed by W. T. Easterbrook
University of Toronto

This is an impressive book, deserving of the close attention of conventional economic historians and growth theorists at present going their separate ways. Professor Cole has much of value to say to both groups, and his characteristic modesty and lengthy list of acknowledgments should not obscure the originality of his timely contribution. The entrepreneur is placed in historical perspective, and as bearer of change in nonauthoritarian societies he constitutes "... a bridge between society as a whole, especially the noneconomic aspects of that society, and the profit-oriented institutions established to take advantage of its economic endowments and to satisfy, as best they can, its economic desires." (Pages 27-28.) In this view, entrepreneurship as a salient aspect of economic development is singled out for examination in a comparative approach which relates economic and noneconomic variables in a broad historical frame of analysis. As decision-maker, making his decisions within the formal organization of business enterprise, the entrepreneur is located in the time-stream and in the social setting with which he interacts; whether a representative of the early nobility or of the modern corporation, his strategies are open to study over a wide range of historical situations. This is an effective and appropriate response to the challenge of the "new" economic history of statisticians and economic theorists, and although the author does not attempt to deal with economic development in all its aspects, his analysis of human action in various environments of change takes us close to the heart of developmental problems.

There are two divisions to the study. The first treats of the troublesome question of definitions and proceeds to relate the entrepreneur to his organization, to other entrepreneurs, and to the cultural and social setting in which he operates. The supposedly distinct disciplines of business administration, economics, sociology and history are merged in a view which in its suggestiveness for a larger synthesis provides a welcome relief from the customary relegation of numerous elements in change (commonly the noneconomic ones) to footnotes or appendices. This facing-up to the complexities of the long-period is in fact the great virtue of the book. Part two takes us to entrepreneurial realities viewed as a series of vignettes in which the parcel of forces bearing on entrepreneurial action is given specific reference. Here the author makes good use of the findings of the Research Center in Entrepreneurial History which functioned so effectively under his leadership. Historical evidence

is drawn on to underline the interaction of entrepreneurship and the social order, the entrepreneurial role in underdeveloped areas, and the relationships between entrepreneurship and technological and political change. Perhaps the most revealing section of the study is the author's tracing of the evolution of entrepreneurship in the United States from its mercantile phase to that of the modern corporate executive. Both parts of the study, the conceptual and the empirical, are rich in insights and in suggestions of value for research along lines which escape the time limitations of present-day theories of growth.

In view of the emphasis placed upon the entrepreneur as the key figure in long-run change, Professor Cole raises anew the difficulty of putting an economic entity to historical and sociological use. His definition of entrepreneurship as "... the purposeful activity (including an integrated sequence of decisions) of an individual or group of associated individuals, undertaken to initiate, maintain, or aggrandize a profit-oriented business unit for the production or distribution of economic goods and services" (page 7), by embracing routine as well as innovational performance, leaves the impression of a blurring of the entrepreneurial function; it may be well to drop the figure of the "heroic" entrepreneur, but there is much to be said for limiting the function to its creative, shaping aspects, less in terms of major achievements or acts of synthesis than in the constant modification of structures, situations or ideas in a continuing process of interaction. This too-inclusive view of entrepreneurship is narrowed by restricting interest to profit-oriented businessmen or business organizations as the primary centers of decision-making; this may be legitimate, with some qualifications, for the study of a business civilization such as the United States, but it raises difficulties when we turn to other cases of economic development in which centers of decision-making other than "business" determine the course of growth. Another minor reservation arises from the impression which the study conveys at many points of brevity overdone; in both the analytical and the historical sections there are numerous observations and illuminating statements which beg for elaboration. There is meat here for a much larger volume. Finally, it is to be hoped that when the book is revised more attention will be paid to editing and to the elimination of irritating typographical errors. These are minor blemishes of small account in a study which may well be regarded as one of the most promising attacks on the problem of historical synthesis which has yet been made. Professor Cole has taken a long step in this direction, perhaps a decisive one.

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THE AMERICAN PETROLEUM INDUSTRY: THE AGE OF ILLUMINATION, 1859-1899. By *Harold F. Williamson and Arnold R. Daum*. Evanston, Northwestern University Press, 1959. Pp. xvi + 833. \$7.50.

Reviewed by Gerald T. White
San Francisco State College

Among the numerous books celebrating the oil centennial, one at least is a worthy commemoration of Drake's famed achievement: this first

volume of a history of the industry sponsored by the American Petroleum Institute. The product of five years of intensive effort by Harold Williamson of Northwestern and Arnold Daum of the API, assisted by a team of researchers, it is a well-planned and ably written study that is superbly supported by more than a hundred tables, charts, maps, figures, and illustrations. It merits the interest of both students of business history and general readers, which is no mean feat.

Over the decades, a voluminous literature has grown up dealing with aspects of oil history in the nineteenth century, but never before has the subject been approached on so broad a front. For their synthesis, Williamson and Daum have drawn to a considerable extent on Beaton, Giddens, Nevins, the Hidys, Maybee, and Arthur Johnson, among more recent students, and on J. T. Henry, McLaurin, and Tarbell, among earlier writers. But they have also worked long and arduously in the source materials for the industry, especially government reports, court records, trade journals, and newspapers.

This intensive coverage of so long a time span gives their book a unique place and value in oil historiography. About half of the volume is devoted to an examination of the background, origins, and formative years of the industry; the remainder deals with the quarter century after 1874 when Standard dominated the oil scene. In reviewing the course of the industry over more than forty years, Williamson and Daum provide their readers with a better understanding of its evolution than is to be gained from the frequently antiquarian literature centering around the history of the Oil Regions or in works that focus on Rockefeller and the Standard. Their discussions of technological innovations in producing, transportation, and refining underscore this point. Nowhere else is there as complete and informing a statement of the importance to the petroleum industry of the pioneering efforts of coal oil refiners prior to 1859. And the authors show the relationships among innovations and the significance of various innovators (e.g., Joshua Merrill and Samuel Van Syckle) with a clarity not possible in a study of lesser scope.

An outstanding feature of the book is the treatment of foreign marketing, on which a wealth of detail is brought to bear. Throughout the period following the Civil War the industry annually sold abroad, and chiefly in Europe, the bulk of its principal product, kerosene, along with a considerable proportion of the lubes and naphthas, and a smaller per cent of crude oil. Standard was especially sensitive to challenge overseas, where it ran into stiff competition. During the 1880's large quantities of Russian refined products were marketed in Europe by the Nobels and the Rothschilds, and in the 1890's Russian competition moved east of Suez through Marcus Samuel's Tank Syndicate, which matured into the Shell Transport and Trading Company. At about the same time in the Far East, Standard felt the first thrust of the Royal Dutch. The authors also note the lesser competition in Europe from Standard's strongest American rivals, the Mellon family's Bear Creek Refining Company in the early 1890's and from the independents who united to form U.S. Pipeline and Pure Oil. The discussion of the activities of these contestants for the major foreign markets is particularly luminous and well balanced.

In dealing with the controversial story of Standard on the home front,

Williamson and Daum take a middle ground. They demonstrate in great detail the undeniable efficiency of the Standard organization and label as exaggerated and distorted much of the writing of such detractors as Henry Demarest Lloyd and Ida Tarbell. Yet they join with earlier writers and government investigators in noting the importance of preferential railroad rates in facilitating Standard's rise to power and its subsequent great advantage in transportation over most rivals through a vast and economical trunkline system that handled Standard's crude almost exclusively. If the railroads had treated all shippers equally and the pipelines had been operated as common carriers from their inception, the authors conclude that "it is at least questionable whether Standard could ever have controlled such a large share of the oil business" and that "there is no question that the probability of more vigorous competition . . . would have been much greater . . ." (pages 729-730). They are less certain that consumers would have benefited because of the tendencies toward combination so manifest in the later nineteenth century.

The shortcomings of this volume are minor and can be attributed, in part at least, to the necessity of having it in print for the centennial: some unusually poor proofreading; several small factual slips, such as dating the formation of the Standard Oil Company (Iowa) as 1884 instead of 1885 and failing to recognize that it, too, was a merger of properties belonging to Ohio Standard and the Continental Oil & Transportation Company (page 547); a chart (page 375) on which the designations of the lines for the Oil Creek District and for Butler, Clarion, and Armstrong appear to have been reversed, and the line for Bradford not to jibe perfectly with the text. Of a different order is the fact that there is virtually no attention given to labor.

This book, which is concerned with 40 years that supplied less than 2 per cent of the oil produced in the United States since 1859, inspires one further comment. How will the remaining 60 years be handled: the flush fields of California, Oklahoma, and Texas; the numerous innovations in oil-finding techniques, in production, refining (including petrochemicals), and in marketing; the proliferation of giant companies, building abroad as well as at home; conservation; government relations; etc.? It is to be hoped that the richness and balance in this first volume can be maintained for that portion of the centennial history yet to be written. To do so, it would appear that two more volumes would be a necessity.

Of this first volume, the authors and the industry can be proud. In addition to supplying data for students of enterprise on many themes, it will be henceforth the first resource for anyone interested in the evolution of the industry during the nineteenth century.

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SEAPORTS SOUTH OF SAHARA: THE ACHIEVEMENTS OF AN AMERICAN STEAMSHIP SERVICE. By Robert Greenhalgh Albion. New York, Appleton-Century-Crofts, 1959. Pp. xii + 316. \$6.00.

Reviewed by John G. B. Hutchins
Cornell University

This well-written volume presents by far the best available account of

American shipping enterprise in the twentieth century. It combines a business history of a major chosen instrument, the American South African Line, now called the Farrell Line, with an account of economic relations between the United States and West, South, and East Africa. The author, who occupies the unique chair of Gardiner Professor of Oceanic History and Affairs at Harvard, effectively exhibits his qualifications as a historian, an authority on maritime and naval policies, and an expert on ships and navigation, ancient and modern. He has had access to the firm's records in New York and an opportunity to explore further his subject on the African coast from Dakar to Capetown and on to Mombasa. He is interesting, informative, judicious, and interpretive.

The organization of the book is felicitous. It begins with a thumbnail economic history of American shipping in the nineteenth century. This is followed by an account of the economic development of Africa south of the Sahara stressing the rise of mining and industrial activity, the emergence of bulk export cargoes, and the growing market for American goods. There is a useful discussion of colonial and railroad policy in the several jurisdictions, and of the development of the ports and their hinterlands. Attention is then shifted to the activities of the Shipping Board after World War I, and to the initiation of service to this part of Africa under its auspices. This service, the American South African Line, was sold in 1925 to James A. Farrell, then president of the United States Steel Corporation, his sons, and associates. The inter-relations in American shipping are here quite effectively discussed. Farrell earlier had established for the Corporation the well-known Isthmian Line, and also the personally held intercoastal Argonaut Line, both of which were heavily engaged in the steel traffic. He also was interested at various times in numerous other ventures, both American and foreign flag. Like the Whitin Machine Works this has been a closely held family business firm. The author then traces the effects of the Merchant Marine Acts of 1928 and 1936, the impact of depression, and the bitter competitive struggles, of which the most serious was with the rival American-flag Robin Line. Then comes World War II, with the accompanying withdrawal of much foreign-flag shipping, changes in trade patterns, losses of vessels, vast agency operations for the government, and an opportunity to replace old and sunk ships from the government fleet. The last portion deals with the absorption of the American West African Line, the organization of the enterprise at home and abroad, the promotion of new trades, the impact of African nationalism, and finally recent major policy issues, among them the question of continuation itself and plans for a third fleet. There are several statistical appendices which tabulate trade figures and ship records.

The point of view is that of the economic historian, not the business administrator. Much attention is given to drawing the environment, and relatively little to the process and issues in making top policy. Public policy, except for some details, is not discussed critically. Nevertheless, in addition to its substantial intrinsic interest, the work goes far to illuminate both the business of shipping and public policy. First, it says much about the rate and service policies of the foreign-flag lines in the early period, and shows the effect of introducing subsidized service on the

trade. The foreign lines had generally equalized rates from New York with those from Europe, itself a surprising development, but they had often provided erratic service, especially westbound. Thus some flesh is provided for one of the commercial arguments for subsidies. Secondly, we can get a good idea of the problems of a chosen instrument operating under contract with government agencies. Much has been written about American shipping from the Washington point of view, and little from that of the operator. It may surprise some to know that there were many problems and achievements with which Washington had little to do, but the open hand of the subsidizing authority was always present to encourage and direct. Of serious conflict there was little.

On the other side of the water there were also crucial relations with competitors, foreign business interests, and colonial governments. The harsh methods used by some rivals to prevent invasion of the trade, the degree of monopoly interest in the colonial system, the difficulties of securing adequate agency representation, and the extent of the preference arrangement will surprise readers. Some of this material also gives support to the advocates of a strong maritime policy. Then there is the question of whether or not the public received an adequate recompense for its outlay. The materials for a judgment are here, at least in part, and it well might be favorable. Finally, the work makes clear the nature of entrepreneurship in shipping, and in particular shows that adaptability, commercial good judgment, financial conservatism, intelligent operation, and an ability to deal with public policies at home and abroad have been no less important in the twentieth century than in the great days of the early nineteenth century.

There are some relatively unimportant omissions. It is difficult to get a good financial picture. Sources of funds are not clearly indicated. One might like to know more about accounting and financial practices. But there is fairly good coverage of the topics of personnel, labor relations, scheduling, and traffic.

This study is a highly praiseworthy addition to the literature on economic and business history and on maritime affairs.

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PRECISION VALLEY: THE MACHINE TOOL COMPANIES OF SPRINGFIELD, VERMONT. By Wayne G. Broehl, Jr. *Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1959. Pp. xii + 274. \$5.95.*

Reviewed by Albert K. Steigerwalt
University of Michigan

Business historians formally committed to researching and writing the history of the firm in terms of policy-making, management and control have long been concerned about relating the firm to the industry, the industry to the economy and the economy to society. A history of the firm written *in vacuo* contributes very little to understanding important relationships between the firm and its environment. The book under review attempts to avoid this insularity by presenting a study of three outstanding machine-tool companies (Jones and Lamson Machine Co., Fellows Gear Shaper Co. and Bryant Chucking Grinder Co.) whose

corporate histories extend back into the first half of the nineteenth century. In addition, the author attempts to reflect this development of the industry by using these firms as mirrors and to delineate the relationships between the community and privately owned business enterprise.

As commendable as is this integrated approach, there are many difficulties to be faced and the primary one is focus. How is one to retain a clear focus or unity in the midst of such diversity? The micro approach alone is difficult enough in theory, the macro orientation requires yet another frame of reference, while the consideration of exogenous factors poses a formidable problem of synthesis. The author has produced a work which reflects a significant effort to achieve such a unity but it would be too much to expect all the problems of synthesis to be solved. Primarily, this critic would allege that the book is too short to encompass all the major facets of the significant relationships between three firms, their markets, the economy and society. However, this approach to business history is to be encouraged and the author is to be congratulated for conceiving such a project and making a sterling effort to fashion a reasonable manuscript. This book should encourage more effort in the direction of a multifaceted approach to business history for Professor Broehl has indeed shown us the way.

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CLARENCE KING, A BIOGRAPHY. By *Thurman Wilkins*. New York, The Macmillan Company, 1958. Pp. ix + 441. \$7.50.

Reviewed by William Miller
Ridgefield, Connecticut

One finds distressingly little in economic and business histories and even in the numerous histories of the American West about the intensive charting of the nation's land, water, and mineral resources after the Civil War. The romance and riot of the "mining frontier" and the "cattle kingdom," of the Indian wars and the construction of the transcontinentals, occupy the annals of the Plains and the western mountains. Yet the wealth of the West, the wealth of the nation, however obvious their incredible endowment in natural resources, was anything but "given." Private prospectors and private plungers might open this section of the western range, that vein of silver in the Rockies or the Sierras; yet as late as 1890 massive and magnificent square miles of American territory, even in the older states East of the Mississippi, remained unexplored, unanalyzed, and unassayed. By then, Congress and some western commonwealths had spent small fortunes (miserly amounts compared to the scientists' real needs) on geological investigations of America's heritage, investigations that crashed temporarily, like everything else, in the Panic of 1893. These investigations revealed unimagined wealth in precious metals and lead and coal, in fertile soils, timberland, and other treasure, that would whet business avarice and enlarge business accomplishments for generations to come. More than that, conducted as they were by such devoted scientists as Professors William H. Brewer and Josiah D. Whitney of Yale and by younger geniuses like Clarence King and that "one-armed fighter with the shaggy rust-red beard," Major John Wesley

Powell, these investigations pushed American science, at least American geological science, across the "moving frontiers" of knowledge. In this coterie of scientific pioneers, precocious Clarence King, in his day, stood forth like Mt. Whitney itself, "the top of the United States," which he himself had named for his one-time chief. It has remained for a Professor of English at Columbia University to give us the first full-bodied study of King and his work, of his character and temptations, of his dreams and disasters, his spectacular rise and tragic fall.

It is appropriate that a student of literature should have written the life of Clarence King. He, himself, was a superb stylist able to transmute all the wonder and reality of mountain wildernesses, mile-high meadows and torrential streams into shimmering prose that never cloyed. "Why not?" King asked, when a friend scouted the scientist's ambition to write a novel. "Geology," says Professor Wilkins, "depended on imagination — who could actually *see* any deeper into the earth than anyone else? King felt, as a matter of fact, that his life in the wilderness had been the 'best training conceivable in constructive imagination.'" Although he unfailingly startled rapt listeners with his marvelous stories of the West, with his instant sympathy for people of every hue or hovel or occupation, with his fabled lode of plot and invention, King remained a raconteur only. He never finished, may never have started, the novel he seemed to yearn to write. At the same time his best conceivable training in constructive imagination was not altogether lost to realms outside of science. A discoverer of incredible wealth in the depths and peaks of the American landscape in an age when incredible fortunes were being made on every side, he soon allowed himself to nurse his fantasies, as Professor Wilkins so aptly puts it, "of mines in Mexico and castles in Spain." Not the last American to die in quest of El Dorado, King wasted the last years of his life in desperate efforts to find and develop the lost mines of Mexico, whence had come Montezuma's hoard. His genuine geologic knowledge only gave stronger wing to his soaring hopes. But vision unfailingly outran the capital at his disposal, and his hopes unfailingly collapsed.

King hated the materialism of his epoch. On his return in 1884 from two wonderful years in England, he compared the United States with the sterile Roman Empire. "Size, brute mass, the big figures of the Census are our pride." Three years later, back from the Orient a mandarin manqué, he cried out, "If being diametrically opposed to the United States is to be a Chinese, I am one." The New England girl of his own upper class he saw as the "prim little Puritan maiden, sharp as a stockbroker, with an unabridged dictionary of a mind." The girl of the golden West fared no better, marked as she was by the "same flatness and sugary insipidity" of the California grape. Late in life, assuming the name of James Todd for the purpose, King married in a religious ceremony only (lest there be a public record to disgrace his family, as he knew it would) a lovely Negress by whom he had five children. He loved her dearly to the end of his life in 1901. To friends who had no inkling of his double life he liked to say that "miscegenation was the hope of the white race."

Yet King, for all his triumphs in science, his talent for writing, his

imaginative grasp of the yawning pit that business was for him, could not resist the competition for wealth that pervaded the American air. Professor Wilkins makes perhaps too much of the American spirit in King's sacrifice of science and art to seek a princely fortune. Others like Brewer, Whitney, and Powell, after all, withstood temptations that warped King's values and ruined his life. Yet this remains but a minor fault in a book as admirably written, almost, as King's own printed work, a contribution to knowledge that is a rare pleasure to read. One does feel constrained to add how useful a map or two of the areas of King's principal explorations would have been to the reader.

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DELOITTE & CO., 1845-1956. By James Kilpatrick and Sir Russell Kettle. Great Britain, Oxford University Press, 1958. Pp. 171.

Reviewed by William C. Stewart
Ohio University

Accountancy owes much to the pioneer English firms for the early background and development of the profession. Several of the present-day American firms can trace their ancestry directly to English founders, similar in character to this major English firm. The authors, retired partners of Deloitte, Plender, Griffiths & Co., have given us a very readable account of the practices and problems of such a firm which has grown steadily with the profession.

A portion of the book is given over to the personalities of the three men whose names are represented in the title of the partnership. Mr. Deloitte, a firm but at times tactless man, was the founder of the firm in 1845. At that time, the accountant was concerned mainly with bankruptcy work, which tended to place a disagreeable connotation on the word "accountant" in the mind of the public. The passage of the Companies Act in 1844 required audits of registered companies, and although the requirement was dropped in 1862, to be restored in 1900, an impetus to the profession was provided from which a steady growth has continued to this day. Mr. Deloitte obtained an early reputation in the field of railway audits and first received prominent public notice with his work on the Great Northern Railway scandal in 1856. Mr. Deloitte was instrumental in founding the Institute of Chartered Accountants in England and Wales and subsequently he and four other partners served as presidents of the organization at various times. During his period as senior partner, he saw the staff grow to 80 members by 1900 and the opening of offices in New York, Chicago and Buenos Aires.

Mr. Griffiths retired at a comparatively early age and devoted a large share of the remaining 20 years of his life to the affairs of the Institute and various hospital charities. William Plender, later Lord Plender, was an intensely public spirited man who gave much of his time to a long list of worthy projects. At the time of his death in 1946, he was regarded by "The Accountant" as "the outstanding figure in the world of accountancy, with an international reputation."

Despite the growth of decentralized or committee management, the inspiration and rationale for the decisions taken by many companies rests

in the personality of one man. The personalities of such men are an important factor in any business history and this book qualifies very well in this area. We are provided with an excellent view of the characters of the men who built this firm to its present high position in the accounting world.

Another large portion of the book is given over to a description of many of the important engagements secured by the firm, including some interesting special engagements. Finally, data is provided on the opening of new offices and alliances with foreign firms, including that with Haskins & Sells, a prominent American firm. After many years of informal association, a firm link was forged in 1952 with the formation of Deloitte, Plender, Haskins & Sells to handle much of the foreign work of both firms.

Accountancy is an expanding field, touching not only the accounts and the auditing of them, but also a wide variety of management services. The relationships between companies and their accountants will become of increasing importance to the business historian. Histories of accounting firms are difficult to write due to the private, partnership nature of the organization and their confidential relationships with their clients. Because of these circumstances, the appearance of such a history is welcomed and further studies in this area should be encouraged.

The book is unusually well printed and contains 13 photographs. A list of all partners since the inception of the firm and a list of all present offices is included. The book was privately printed for a limited distribution.

In summary, I consider the book an excellent contribution. It is not analytical as reasons behind many decisions and factual data on such matters as size of staff and firm earnings are necessarily lacking. On the other hand, the record of the firm is presented in an interesting and well-written manner, the vignettes of the late nineteenth century office being particularly appealing to the historian.

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STUDIES IN EARLY PETROLEUM HISTORY. By R. J. Forbes. Leiden, Netherlands, E. J. Brill, 1958. Pp. ix + 199. Approx. \$7.00.

MORE STUDIES IN EARLY PETROLEUM HISTORY. By R. J. Forbes, Leiden, Netherlands, E. J. Brill, 1959. Pp. 199. Approx. \$7.50.

Reviewed by Kendall Beaton
Shell Oil Company

Beyond a doubt, Professor Robert James Forbes of Amsterdam is one of the most industrious historians of science and technology, in this or any other age. With the publication of these two new books, a total of ten volumes have been issued from his publishers since 1955¹—to say nothing of his substantial contributions to learned quarterlies and reference works such as the *Oxford History of Technology*. It is a pleasure to report that Professor Forbes, embodying the thoroughness and applica-

¹ Six volumes of a projected 11-volume set, *Studies in Ancient Technology, 1955-1959; The Technical Development of the Royal Dutch/Shell, 1890-1940* (with D. R. O'Beirne), 1957, all published by E. J. Brill, Leiden; *Man the Maker*, rev. ed. (New York: Abelard-Schuman, 1958).

tion of both his Scotch ancestry and Dutch upbringing, has produced works of lasting merit that will be standard in their field for many years to come.

Ever since the publication of his classic *Bitumen and Petroleum in Antiquity* (1936), Forbes has been the recognized authority on the history of oil prior to 1859, the date when the completion of the Drake well at Titusville, Pennsylvania, launched the modern petroleum industry. These two new books, dealing primarily with the history of oil during the Middle Ages and early modern periods, will serve to buttress an already established reputation.

Unlike some of Forbes' other works, these new volumes are for the specialist. Here is no easy, sweeping "survey" account, but — as the titles imply — a collection of carefully done monographs: papers dealing with specific oil-bearing regions of Europe, the Near East, and Orient from roughly 1,000 A.D. up to the time of Drake. Evidence is produced in the form of contemporary accounts (most of them extremely rare), and some of the more important are reproduced in full as appendices. There are also accounts of early travelers and explorers telling of oil occurrences and usage in Persia, China, and the newly discovered Americas; a detailed description of the work of early chemists on petroleum and its properties; the use of oil in warfare for more than 1,500 years before the introduction of gunpowder; oil as medicine; and oil advertising during medieval and early modern times — all presented in careful translations of contemporary source material with copious pictorial illustrations.

Finally, there are accounts of the start of modern oil refining: the production of coal-oil illuminants in Western Europe and America, and of petroleum-based kerosene in Rumania and the old Austro-Hungarian Empire. Researchers in petroleum-industry history will find this last-named section ("Oil from Eastern Europe," *More Studies*, p. 91 ff.) of particular value, for Forbes brings together detailed documented information, hitherto unknown in this country, on the petroleum industry which flourished in Eastern Europe from 1840 onwards, including names, locations, and capacities of refineries.

These are books for the specialist, and books the specialist will appreciate.

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ENGLISH HISTORICAL DOCUMENTS. VOLUME IX, 1783-1832.

Edited by Arthur Aspinwall and E. Anthony Smith. New York, Oxford University Press, 1959. Pp. xxx + 992. \$15.20.

Reviewed by Barry E. Supple

Harvard Graduate School of Business Administration

This is the seventh in order of appearance of the massive series of twelve volumes designed to reprint "fundamental sources" for English history from 500 to 1901. It has eight parts, whose titles broadly indicate the coverage: The Executive, Parliament, The Administration of Justice, Local Government and Poor Law Administration, Economic Development, Social and Religious Life, The Empire, Wars and Foreign Policy. Its aim is to reproduce sources, both printed and manuscript,

"which are more often cited than read and more often sought than found." Given the scope of the subjects and the limits of such a compendium, it would appear to succeed admirably.

The bulk of any such publication must necessarily be peripheral to the main interests of economic and business historians. But on two counts they may find some value in its perusal. First, this particular volume spans the years traditionally associated with the English Industrial Revolution; it therefore provides a cross-sectional view of society undergoing the most significant type of change to be found in modern history. Secondly, the part on economic development, and sections of other parts (e.g., local government and poor law, social life, the Empire) deal more directly with relevant topics. The organization is traditional: agriculture, industry, communications, trade, finance, wages, prices. The emphasis is inevitably impressionistic, but there is a salutary use of available primary statistics. There are, of course, notable gaps, among them the business factors which are necessary to any understanding of economic processes. Nevertheless, there is a good deal of valuable material. As a source book for the period it should be useful to most students and teachers in the field of economic history. It has interesting editorial introductions to each section, and abundant bibliographies.

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STORY OF THE GEAR CUTTING MACHINE. By Robert S. Woodbury. Cambridge, The Technology Press, 1959. Pp. 135. \$3.00.

Reviewed by Ralph E. Flanders
Springfield, Vermont

The industrial revolution has inspired countless authors to produce countless volumes. Some attention has been given to the machines which made the revolution possible — the spinning mule, the power loom and, above all, Watt's steam engine which powered the machines and Stevenson's locomotive which powered the transportation of the massive flow of fuel, materials and finished product.

There is a related area which has not been adequately explored. This is the area of machine tool development without which the whole organism of the industrial revolution (from English textiles to Detroit automobiles to the airplanes of the Pacific Coast) would have suffocated in the cradle. The far-sighted donors of the Wilkie Foundation have recognized this unexplored area in economic history and have financed a series of research expeditions to discover and record the missing data. The book before us is the first report of this happily conceived project.

Of all machine tools, gear cutting machinery forms the most intimate connection between mathematics and the machining process. The problem is to so shape the teeth of gears that when they are running together the driver will transmit to the driven a smooth, regular motion with a minimum of friction between teeth of adequate strength. To meet these requirements the gear teeth have to be given accurate geometrical forms of which the involute and cycloidal are the best known. These forms have to be applied to gears of various types: spur, bevel, helical spur and helical bevel, and to worm gearing as well. The problem is not a simple one.

Furthermore it is not enough to define on the drawing board the curves selected for any given application. It is next necessary with great accuracy to reproduce the geometrical curves on the gears themselves. Finally that necessary accuracy has to be obtained by processes and machines which have the high output required for modern mass production.

Professor Woodbury traces the development of gear-tooth theory and gear-tooth manufacture from its first beginnings in watch and clock making up through to the present time. The first gear teeth were empirically shaped and quite inefficient. Gear-tooth theory became a subject of study among geometers around 1700. The wedding between theory and production was long delayed. It did not take place until the mid-nineteenth century.

Since that time there has arisen an amazing array of gear cutting machines, based on a similar array of geometrical and production principles. The development process is still going on, with new problems introduced by the involute form of worm tooth.

By judicious but generous selection Professor Woodbury sets forth the whole story in the monograph before us. He has performed his task well. His handling of the remaining monographs on machine tool history thus have the presage of a satisfactory beginning. It would seem that the purposes of the Wilkie Foundation are well on the way to being accomplished.

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BANKERS AND PASHAS: INTERNATIONAL FINANCE AND ECONOMIC IMPERIALISM IN EGYPT. By David S. Landes. Cambridge, Harvard University Press, 1958. Pp. xvi + 354. \$6.00.

Reviewed by Max E. Fletcher
University of Idaho

Bankers and Pashas is a book written with sparkling style, broad in sweep yet meticulous in detail, with factual data judiciously used to support important generalizations. The work as a whole reads like a well-constructed novel.

Some years ago Professor Landes discovered in the vaults of the Bank of France a remarkably complete, intimate, detailed correspondence between two nineteenth-century bankers: Alfred André, representative of the *Haute Banque* and international financier; and Edouard Dervieu, private banker to the Viceroy of Egypt during part of the decade in which the letters were exchanged (1858-1868). Using these letters as a starting point, Landes chronicles the rapid rise of Edouard Dervieu to a position of affluence and power in Egyptian finance and his even more sudden decline after a fall from grace. Equally important, Professor Landes uses Dervieu and his financial operations as a focal point around which to shape a re-examination of Egyptian economic history during that fascinating era when Egypt was enjoying an unprecedented cotton boom as the result of the American Civil War, the Suez Canal was a building, and the black clouds of suspension and national bankruptcy were building up on the horizon.

A career such as Edouard Dervieu's would have been impossible a

century earlier, or even half a century earlier. Fundamental changes in financial institutions and banking outlook were necessary before an outsider such as Dervieu could scale the financial peaks. Dervieu himself does not make an appearance until the volume is one-third completed. He is the central figure of the drama, however, and Professor Landes uses the early chapters to set the stage for his arrival. Drawing materials from widely diverse sources, Landes first paints an authoritative picture of the development of merchant banking. Prudence, thrift, discretion, and noncompetition were its watchwords. Operating on the basis of these principles, merchant banking reached its peak of influence and power around the middle of the nineteenth century. At this point the struggle between *vieille banque* and *banque nouvelle* was joined. The joint-stock finance company, wonderfully equipped to do battle in the investment arena, represented the trend of the future. Set up in the beginning to take advantage of opportunities ill-suited to private banking exploitation — railways, harbor improvements, colonial and state loans, etc. — finance companies shortly expanded into the more hazardous but potentially more profitable extension of accommodation credit and straight money-lending.

It was in the credit-starved Near East that the competition between old and new modes of banking became most intense. And in Edouard Dervieu et Cie we find a strange juxtaposition of old and new: the older institution, a private banking partnership, being used to exploit investment and money-lending opportunities an earlier generation of private bankers would never seriously have considered — a fact that Dervieu's conservative correspondent never wearies of telling him.

Beginning his banking career with the formation of Edouard Dervieu et Cie on December 1, 1860, after distinguished service as Messageries Maritimes agency manager and less marked success as director of the Medjidieh, an Egyptian steamship line, Edouard Dervieu soon found opportunity to capitalize on his two most important assets: his well-developed connections with the Egyptian court, and his friendship with André, who was associated with the Paris banking firm of Adolphe Marcuard et Cie. In the "Klondike on the Nile" — Egypt during the cotton boom — it was not difficult for an astute businessman with both political connections in Egypt and financial connections on the Continent to find remunerative undertakings. Perhaps the most obvious and readily available were transactions in debt certificates of the Viceroyal government.

With successive Viceroys committed to rapid "Westernization," personal aggrandizement, and the building of the Suez Canal, Egyptian government paper in circulation began to swell, from a freshet under Saïd to a torrent under Ismail. Only a small portion of this growing debt could be disposed of in poverty-stricken Egypt. Continental connections were a must — and Dervieu had those connections. Thus Edouard Dervieu et Cie became ever more centrally involved in the placement of Egyptian securities, until finally Edouard Dervieu was the "royal banker," with all the prerogatives and responsibilities associated with that role. And there were onerous responsibilities, chief of which was the disposition or absorption of government paper. If European in-

vestors took the obligations, well and good; if not, they entered the portfolios of Dervieu et Cie. When the mass of Egyptian securities became almost indigestible on the Continent, Viceroy Ismaïl assisted Dervieu in increasing the capitalization of his company — in order that the company could absorb more Egyptian securities. When Dervieu et Cie reached its saturation point, Dervieu's usefulness to the Viceroy was at an end and he was cast aside to make his way on his own. Well, more or less. The tradition that the Egyptian government had an obligation to keep any European firm doing business in Egypt from failing — regardless of the quality of its management — came to Dervieu's aid. Yet another European loan was floated and Dervieu was able to collect on enough of his Egyptian loan paper to wind up his affairs and return to France moderately wealthy.

The foregoing suggests that when there are willing lenders and willing borrowers it is difficult to distinguish the exploiters from the exploited. The Viceroys, up to a point, were not forced to take the European money — but they did and ultimately lost their autonomy; neither the bankers nor the European investors had to take the Egyptian bonds or invest in Egyptian trade and industry — but they did and many of them lost a substantial part of their investment outlay. Quite obviously economic imperialism stems from causes much more complex than earlier analyses have led us to believe. Only case studies such as this, that dig deeply into relationships between lenders and borrowers, can shed much new light on this old problem.

This bare-bones account of Landes' story fails to do full justice to the work. There are captivating asides and digressions throughout the volume: on the business atmosphere in Egypt; on the building of Suez and Egypt's part in that mammoth undertaking; on the techniques of financial operations, both in Egypt and in Europe; on the clash of Western and Eastern standards in the conduct of business affairs in Egypt; on the impact of the cotton boom — and bust; and so on. In a concluding chapter the author sums up and gives the moral of his story.

If there is a weakness in the book it is that it draws to a close rather abruptly. Once Dervieu winds up his affairs and returns to France the story is all but ended. The correspondence between Dervieu and André concludes at that point, of course, but Egypt — "co-hero" of the account — has still some distance to go before throwing herself on the none-too-tender mercies of her foreign creditors. Yet her fate has been so clearly portended by Professor Landes and details of the bankruptcy have been so thoroughly worked over by other authors that perhaps nothing more than Landes gives was called for here.

The reviewer would like to commend the publishers for an excellent job of proofreading and publication. The format is attractive, typographical errors are almost nonexistent, and the footnotes are where they belong — at the foot of the page. There is one disconcerting feature of the book, however. *Bankers and Pashas* carries the imprint of the Harvard University Press, but the spelling is British: "rumour," "plough," "floatation," "judgement," etc. Is this a necessary cost of British printing of American manuscripts?

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¶ Criteria for selection include: originality, value, breadth, and interest of contribution, quality of research materials and methods, and quality of presentation.

¶ Presentation of the 1959 awards was made by Charles Penrose, Jr., Senior Vice-President for North America, at The Newcomen Society Massachusetts Dinner on November 5, 1959, at the Hotel Somerset in Boston.

In this issue

BUSINESS HISTORY REVIEW



Hercules — The Growth of a Firm

Growth is governed by a creative and dynamic interaction between a firm's productive resources and its market opportunities. Available resources limit expansion; unused resources (including technological and entrepreneurial) stimulate and largely determine the direction of expansion. While product demand may exert a predominant short-term influence, over the long term any distinction between "supply" and "demand" determinants of growth becomes arbitrary.

EDITH T. PENROSE

Albert Fink and the Pooling System

In the energetic attempt to control destructive competition through pooling, Albert Fink occupied a position of prominence analogous to that enjoyed by Morgan in the consolidation movement that was to follow. Fink's rational advocacy did much to dispel the notion that the railroads were exercising irresponsible censorship over the affairs of the business community. His rate-making ideas and techniques were a lasting contribution to scientific railroad management.

D. T. GILCHRIST

How Claus Spreckels' Hawaiian Career Began

Many Hawaiians viewed the great irrigation project and its vigorous promoter with enthusiasm and awe. Unfortunately, not all aspects of American entrepreneurship were palatable to the Islanders.

JACOB ADLER

A Michigan Lumbering Family

The bananza lure of lumbering proved irresistible to many established small businessmen, who were dazzled by the prospects of cheap raw materials and simple processing, on the one hand, and by growing markets on the other. Disillusionment was frequent, but amidst crushing difficulties created by inexperience and inadequate capital the small operator proved remarkably ingenious and persistent. His often ill-rewarded and seemingly unjustified ventures contributed much to the economic growth of the nation.

RUTH B. BORDIN

The Newspaper Career of Charles H. Dow

A major accomplishment sometimes overshadows the background that made accomplishment possible. The creator of Wall Street's most famous investment formula was, in fact, a journalist and entrepreneur of note. His total contribution to the financial community was far larger than the theory for which he is remembered today.

GEORGE W. BISHOP, JR.

OVER THE COUNTER

Values and Income through Time — Arthur H. Cole; Researching the Entrepreneur — Yusif A. Sayigh; Editorial Notes: Katharine Woodruff Memorial; German Edition of American Publication

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ARTICLES SUMMARIZED
ON BACK COVER



BUSINESS HISTORY REVIEW

COVER: Steam-
boats at the
Levee (1871)

The hustle and bustle of a vigorously expanding nation centered at the rail terminals and on the docks, for transport was the key to growth. Contemporary observers, no less than the historians who followed, were captivated by the glamour and portent of the "whistle 'round the bend."

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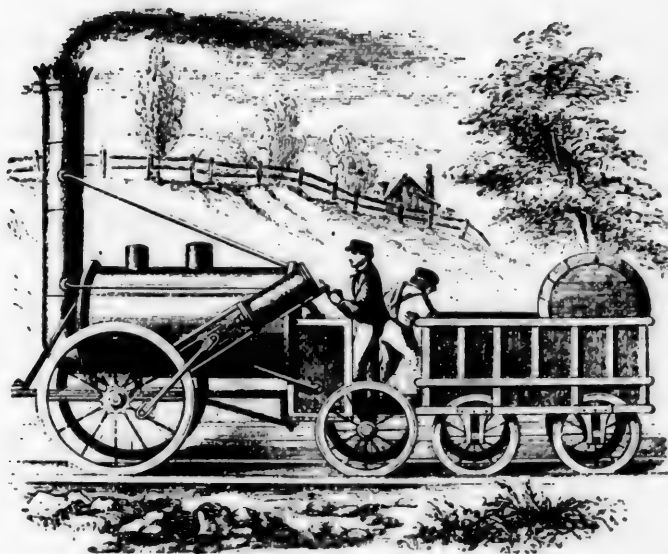
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British Railroads and Engineers and the Beginnings of American Railroad Development

■ Practical demonstrations in Great Britain led some observers to conclude that the railroad would soon introduce "a new era in the business and arrangements of Society." Thus inspired, promoters of the first American rail ventures began to draw heavily, both for practical information and equipment, upon the resources of the British pioneers, whose response was magnificently cooperative.

by Robert E. Carlson

ASSISTANT PROFESSOR OF HISTORY
AT UNIVERSITY OF PITTSBURGH

When Edward H. Robbins and James Hayward, engineers appointed by the Massachusetts Directors of Internal Improvement to view the railroads and canals of Pennsylvania and Maryland, filed their report late in 1829, they expressed a conclusion which summarizes America's first experiences with railroads. They wrote, "The recent experiments which

have been made in England upon rail-roads and rail-road carriages [they were referring to the Rainhill Trials on the Liverpool & Manchester] have put beyond question the vast superiority of this method of transportation over that by canals, independent of the climate and the face of the country."¹ While it would be an overstatement to assert that this conclusion had been widely adopted in the United States, or even in England, it did reflect the growing interest there and here in new and more efficient methods of transport.*

As J. H. Clapham saw it, England entered the Railway Age in 1820; America's entry was not quite so early, nor was it, once started, so intensive and far-reaching. Yet in tracing these somewhat parallel developments, one lagging just slightly behind the other, there is ample evidence of America's reliance on the English experience for direction, not only in promotional features but also in determining technical and operational matters. Letters and reports from travelers, articles in English newspapers and periodicals, prospectuses and progress reports of railroads planned and under way, scientific treatises as well as personal visits by English authors, educated American promoters and engineers at a time when our accumulated knowledge about railroads was limited.

One of the earliest evidences of American interest in English railway progress is found in the Liverpool & Manchester Company's first prospectus, dated October 29, 1824. Warning Englishmen that their own tardiness in building faster and more efficient means of transport would not stop improvements elsewhere, the prospectus revealed, "In the United States . . . they are fully alive to the important results to be anticipated from the introduction of Rail-roads; a gentleman . . . having recently arrived in Liverpool, with whom it is a principal object to collect the necessary information in order to the establishment of a Rail-way, to connect the great rivers Potomac and Ohio."² We do not know whether this gentleman was Evan Thomas, brother of Philip E. Thomas, the Baltimore & Ohio's first president, or William Brown, Alexander Brown & Sons' Liverpool agent and brother of George Brown, another B&O promoter (it was more likely the former), but it is certain that both men passed ideas and documents along to their Baltimore relatives. A

* This article was originally presented as a paper at the American Historical Association Meeting in Chicago, Dec., 1959.

¹ Edward H. Robbins and James Hayward, *Report*, Dec. 15, 1829, in *Report of the Directors of Internal Improvement on the Subject of Rail Roads* (Transmitted to the [Massachusetts] Legislature, Jan. Sess., 1830, Boston, 1830), p. 26.

² Printed in full, among other places, in *Liverpool Mercury*, Vol. XIV (Nov. 26, 1824), p. 175; and Henry Booth, *An Account of the Liverpool and Manchester Railway* (Liverpool, 1830), pp. 9-14.

suggestion of the value derived from this information comes in a letter from Alexander Brown & Sons to its Liverpool subsidiary, dated March 1, 1825: "Rail Roads are a good deal talked of on this side & if they are found to answer with you they will soon be at work on them here."³ Within two years the B&O was being promoted.

During these early months of 1825, *Niles' Weekly Register* made its contribution to this small beginning in stimulating interest in railroads. In an editorial of March 26, Niles commented, "The great prevailing *notion* is, that rail roads, travelled by wagons, drawn or dragged by steam power, is a cheaper and more expeditious mode of transporting commodities than by way of canals, and it is probable that the experiment will be extensively tried during the present year [he meant the opening of the Stockton & Darlington]."⁴ He attached a lengthy excerpt from the *London Courier*, entitled "Calculations on Rail Roads," and summarized the results of the Killingworth trials with locomotive engines held by order of the Liverpool & Manchester. Most significantly, he promised to include articles on railways from time to time "to shew what is going on." Within the next two months better than two columns were devoted to an article taken from the *London Quarterly Review* in which it was held that railroads were cheaper, safer, and more certain than canals, and one-and-a-third columns to a review of Thomas Gray's *Observations on a General Iron Rail-way*, now in its fifth English edition.

Pennsylvania, trailing behind her neighbors in building roads and canals, used a more direct technique. Late in 1824, 48 Philadelphians (most of them members of the Franklin Institute) organized the Pennsylvania Society for the Promotion of Internal Improvement. At first, it intended to awaken an interest in canals, railroads, and roads by publishing pamphlets and essays. But because the Society lacked precise technical information, it resolved in January, 1825, "that it is expedient to send an agent to Europe, to collect information of all the valuable improvements in the construction of canals, railways, bridges, steam-engines, and all other information calculated to promote the objects of the Society."⁵ The sum of \$3,000 was raised from the membership for this purpose, and William Strickland, a rising young architect and engineer, was

³ Letter, Alexander Brown & Sons to W. & J. Brown, March 1, 1825, in Alexander Brown & Sons Papers, Library of Congress.

⁴ "Rail Roads," *Niles' Weekly Register*, Vol. XXVIII (March 26, 1825), pp. 54-55.

⁵ *First Annual Report of the Acting Committee of the Society for the Promotion of Internal Improvement in the Commonwealth of Pennsylvania* (Philadelphia, 1826), p. 10.

appointed agent. Appropriately the patrons were given ample opportunity to express themselves on what they wanted their agent to see and report on, and two days before his departure (he left Philadelphia for Liverpool on March 20) he was given detailed instructions.⁶ Strickland was directed first to go to England, Scotland, Wales, and Ireland, where the Society believed the most progress had been made in applying the arts and sciences to internal improvements, and later to France, Holland, and Germany, but only as his interest and time permitted. He was to keep a diary (which incidentally was to become the property of the Society) and in this he was to write reports of his findings. Concerning the information he was to gather, the instructions were most explicit: "It is not a knowledge of abstract principles, nor an indefinite and general account of their application to the great works of Europe [that we want] These we possess in books What we earnestly wish to obtain, is the means of executing all those works in the best manner, and with the greatest economy and certainty. . . . We desire to obtain working plans . . . so that those works may be executed in Pennsylvania, without the superintendence of a civil engineer of superior skill and science."

A significant footnote was added to these instructions: "We would claim your attention to a pledge which has been given by the Society to the public; That your first efforts shall be directed to *railways*, and that at as early a period as possible you shall communicate all the information you can collect upon them." To this end Strickland was to ascertain the greatest possible angle of ascent, remembering the mountains of Pennsylvania, the best foundations for receiving an iron rail while noting the effects of the climate, and the expense of building railways, especially as it related to the differences between the cost of labor in England and America.

Wherever Strickland went in Britain he was received with friendliness; he was shown plans and sections by leading engineers (he named his younger son after Jesse Hartley, engineer of Liverpool's docks), and saw such railways as were being built or were in operation around Lancashire, Leeds, and Newcastle.

Obedient to instructions, Strickland, while abroad, prepared several letter reports on railways for his patrons. The first, remarkable for its length (over 5,000 words) and clarity after so short an acquaintance with English railways (it was dated June 16), is almost a textbook of information.⁷ Admittedly some of his conclu-

⁶ "Mr. Strickland's Instructions," March 18, 1825, in "Appendix," *First Annual Report of the Acting Committee of the Society*, pp. 30-40.

⁷ Letter, William Strickland to the Pennsylvania Society for the Promotion of Internal

sions were tentative and were later changed; yet his grasp of fundamentals enabled him to arrive at key decisions almost immediately. He recognized the value of stone sleepers on solid earth and timber pieces on embankments; he analyzed the then-current controversy between cast iron and malleable iron rails and threw his lot with the former because they had "the recommendation of having been tested by longer experience"; he urged the adoption of a straight, level right-of-way, because locomotive engines could then be used to advantage; in fact, he gave detailed descriptions of virtually every construction feature of English railways, from the shape of rails to the weight of wagons. On locomotives, he was deeply impressed with what he saw: "the introduction of the locomotive engine has greatly changed the relative value of railways and canals; and, where a communication is to be made between places of commercial or manufacturing character, which maintain a constant intercourse, and where rapidity of transit becomes important, it cannot be doubted that railways will receive a preference, in consequence of this very powerful auxiliary."

His second letter report, dated October 20, shortly before his return to the United States, produced several additional recommendations.⁸ He told the Pennsylvania Society that if an extensive railway was proposed for the Commonwealth, it should be a level, double line of edge-rail "calculated for the use of locomotive engines." However, he hedged on the need for a straight line and accepted winding around hills to get the required level. Here he had come to a conclusion that many later American engineers were forced to recognize, that "the directors like rather to see short columns of figures on their treasurer's books than read records of great triumphs in their engineer's reports."⁹

After his return he, along with Samuel H. Kneass who had been his secretary and artist while abroad, prepared a formal report. The original plan was for the document to be published as soon as 250 copies were subscribed to; 334 copies were taken up almost immediately. The subscription list reflects this widespread interest — 25 copies for the House of Representatives, 10 for the State of Maryland, 3 for the Delaware & Hudson Canal Co.; single copies

Improvement, June 16, 1825, in William Strickland, *Reports on Canals, Railways, Roads, and Other Subjects* (Philadelphia, 1826), pp. 23-31.

⁸ Letter, William Strickland to the Pennsylvania Society for the Promotion of Internal Improvement in the Commonwealth, Oct. 20, 1825, in *First Annual Report of the Acting Committee of the Society*, pp. 41-44.

⁹ T. C. Clark, "Railway Engineering in the United States," *Atlantic Monthly*, Vol. II (1858), p. 645. See the *Journal of the Franklin Institute*, Vol. I (1826), pp. 11-15, 71-77, and 134-138 for extracts of the Pennsylvania Society's first annual report and its instructions to Strickland.

for DeWitt Clinton, Oliver Evans, Joseph Henry, Jonathan Knight, Major S. H. Long, Robert Mills, Benjamin Wright, and, significantly, Duke Bernard of Saxe-Weimar. Although the formal paper was published too late to have any effect on the agitation for internal improvements in Pennsylvania in 1825, the letter reports were gleaned for information which later appeared in pamphlets, essays, and newspaper articles prior to the Harrisburg Canal Convention of August. It helped awaken the Pennsylvania legislature to the need for finding the most direct route from Philadelphia to Pittsburgh and it probably was responsible for getting Strickland appointed as engineer of the eastern division (that is, the railroad from Philadelphia to Columbia) of the proposed Pennsylvania system. Finally, Strickland brought home a working model of a Stephenson locomotive for display and, with a sum of money allocated for the purpose before his departure, he purchased copies of John Smeaton's three-volume *Reports on Civil Engineering* (1812), Thomas Tredgold's *Practical Treatise on Rail-roads and Carriages* (1825), and Thomas Gray's *Observations*, among others, for the Society's library.

The tempo of American interest in railroads accelerated in 1827. Not only were groups of promoters along the eastern seaboard holding organizational meetings, drawing up prospectuses, and seeking financial support, but more information was being sought from England. Baltimore, as much as any city, was alive to these developments. With the movement toward the Baltimore & Ohio rapidly taking shape, Alexander Brown advised his Liverpool office that, "The people in this country have lately been turning much of their attention to the formation of Rail ways." He asked for a copy of the Liverpool & Manchester's charter and "any other useful information you may be able to obtain for us relative thereto"; because the L&M was already being recognized as the "Grand British Experimental Railway," he hoped that its engineers might be prevailed on to supply that information. A question of significance for the future was asked in this letter of February 24: "If the thing goes on we may find it desirable to get a practical man out, of first rate talents. Can such be readily obtained & can you guess what compensation would command such a man?" A month later, a list of questions pertaining to railway matters was dispatched to Liverpool, to be "answered by a person that can be relied on" while "a model in wood of the Rail intended to be raised on your road with the ground work" was to be sent to "enable us to see clearly how they are fixed." Later in the spring, a set of wheels and a model of the L&M rail that had been sent attracted so much at-

tention that Alexander Brown requested another set of wheels. This led him to comment, "Confidence increases daily & every one is satisfied of the immense advantages to be gained by the whole country, in making the road."¹⁰

Not only were Americans drawing on English sources in 1827 but they were exchanging railroad information with one another. Abbott Lawrence of Boston and Orson Kellogg of Baltimore corresponded, the former stating that railroads had "become . . . of considerable interest in this State and City."¹¹ He sent a drawing of the Quincy railroad, a copy of Charles Maclaren's Edinburgh pamphlet comparing railways with canals and roads, and promised to send a copy of the Massachusetts legislature's recommendations on internal improvements. Lawrence, though he had less information on detail than he wanted, nevertheless was satisfied that "for this part of our country, a Rail way is much superior to a Canal."

This same year, as part of its information-collecting process, the recently chartered B&O sent three of its leading promoters, Philip E. Thomas, Alexander Brown, and Thomas Ellicott, north to examine the Mauch Chunk and Quincy lines. After a thorough examination of both and talking with at least ten engineers, the deputation was satisfied that there would be no difficulty in constructing their proposed railroad. But, to avoid mistakes, the three recommended that a committee should go to Europe to inspect and discuss railroads "in order that we may become distinctly informed of all modern improvements, in the application of moving power upon them."¹² This was done the following year. In the meantime the committee sent its engineer, Stephen H. Long, to inspect the Quincy. While he admitted that this road "evinces more of enterprise and public spirit than of permanent utility," its rails of stone plated with iron amazed him. He called them "a most valuable, as well as practical improvement," because of their firmness, stability, and durability and urged their adoption, which subsequently was done.

Along with her sister states, New York's interest in railways expanded during the mid-1820's. In this instance, it was the Delaware & Hudson Canal Co., through its chief engineer, John B. Jervis, and one of his resident engineers, Horatio Allen, that investigated the advantage of cheaper modes of transport. Although he had never

¹⁰ These letters are part of the Alexander Brown & Sons Papers, Library of Congress.

¹¹ Letter, Abbott Lawrence to Orson Kellogg, Feb. 20, 1827, in *Baltimore & Ohio Railroad Company Papers*, Maryland Historical Society, Baltimore. See also Alfred R. James, "Sidelights on the Founding of the Baltimore and Ohio Railroad," *Maryland Historical Magazine*, Vol. XLVIII (1953), p. 277.

¹² "Report of the committee appointed by the *Baltimore and Ohio Rail Road Company*, to examine the Mauch Chunk and Quincy railroads," June 12, 1827, in *Niles' Weekly Register*, Vol. XXXII (June 23, 1827), pp. 282-284.

seen a railroad, Jervis, after studying accounts of Pennsylvania's Mauch Chunk and reading the available British engineering works, prepared a summary report for the company's Board of Managers early in 1827.¹³ He recommended a double line of timber rails capped with rolled iron plates set at a 4' 3" gauge as best adapted to this coal line's needs. Jervis called for locomotive engines, not only because he felt they were about one-half as expensive to operate as horses but also because they made fast and regular service possible. However, on comparing the cost of iron manufactured in America with that from abroad, the Delaware & Hudson company found it distinctly advantageous to import the quantity needed. It was at this point that Horatio Allen entered the picture. He had been a resident engineer for some time, but early in 1827 resigned his position, "having come to conclusions as to the locomotive . . . and believing that the future of the civil engineer lay in the direction of the . . . railroad era, I decided to go to the only place where a locomotive was in daily operation, and could be studied in all its practical details."¹⁴ Naturally the D&H was not eager to lose one of its bright young men, but Allen's plan to travel fitted perfectly with the company's decision to buy iron abroad. A mutually satisfactory arrangement was made — Allen would travel in England under company auspices and while there place orders not only for iron but also for locomotives. It must have taken no little courage on Allen's part to carry out this assignment for as he said later: "I had not even seen a bar of iron rolled."¹⁵

Prior to Allen's departure in late January, 1828, Jervis prepared an assortment of instructions for the Delaware & Hudson's agent.¹⁶ Some details were precise, others were so indefinite that Allen would have to demonstrate considerable judgment, perhaps more than his limited experience could have allowed. Since Jervis could not settle on the number of wheels a locomotive should have, two sets of specifications were drawn up. An engine with 6 wheels (which Jervis preferred) could weigh between 6 and 7 tons, while one with 4 wheels could weigh no more than 5½ tons. In either

¹³ Letter: Report, John B. Jervis, Engineer, to the President and Board of Managers, for the Delaware & Hudson Canal Company, Oct. 22, 1827. (Typescript copy in Library, Bureau of Railway Economics, Association of American Railroads, Washington.)

¹⁴ Horatio Allen, *The Railroad Era, First Five Years of Its Development* (New York, privately printed, 1884), p. 14.

¹⁵ *Ibid.*, p. 15.

¹⁶ Letter, Jervis to Allen, Jan. 11, 1828, in William Conrad Kessler, "The Private Library of John Bloomfield Jervis," *Railway & Locomotive Historical Society Bulletin* No. 52 (May, 1940), p. 45. Letter, Jervis to Allen, n.d., in William Conrad Kessler, "Letters of John B. Jervis," *Railway & Locomotive Historical Society Bulletin* No. 53 (Oct., 1940), p. 12. See also letter, Jervis to Allen, Jan. 16, 1828, in J. K. Finch, "John Bloomfield Jervis, Civil Engineer," *Transactions of the Newcomen Society*, Vol. XI (1930-1931), pp. 109-120.

case, a speed of from 3½ to 5 miles per hour was considered optimum for the D&H's purposes. Since no one knew how much these locomotives would cost, Jervis arbitrarily set \$1,800 as the figure, and told Allen, "I presume it will not be economy to purchase them from England at a greater cost, unless you perceive a superiority in the workmanship of English engines, that in your opinion will justify the additional cost."

Provided with appropriate letters of introduction, Allen arrived in England in February and spent most of 1828 on his mission of self-improvement and purchase.¹⁷ At Liverpool he was the house guest of William Brown and spent many hours acquainting himself with that city's docks, steam engines, and railways, often in the company of Jesse Hartley. He discussed locomotives with George Stephenson and accompanied him on an extensive examination of the L&M's line. At the invitation of Stephenson and Hartley, whom Allen described as pleasant and "perfectly willing to converse on whatever topic I wished to introduce," Allen devoted several mornings to copying plans and sections of the docks and railways, as well as details of the rail, chair, wheel, and axle to be used on the L&M.

Next he visited 17 iron works in Wales and Staffordshire and placed the order for iron with W. & I. Sparrow of Wolverhampton; within 10 days the iron was being made on the plan proposed, and subsequently it was delivered, in every respect satisfactory.

The more difficult of his tasks still lay before him and Allen was determined to go to the north of England where the railways would provide him with detailed information. Apparently the deliberateness with which Allen proceeded agitated Jervis, for in March the latter wrote, "I look with great anxiety for your letter on the question of locomotive engines, but do not wish to be understood as nagging you forward to a hasty decision. . . . It is true as you may well know that I have strong hopes of their applicability to our objects."¹⁸

If Jervis had been more patient, he would have realized that Allen was rapidly becoming an enthusiast of railroads and locomotives in his own right. While visiting the Stockton & Darlington, Allen saw malleable iron rails placed 4' 8" apart on timber and stone sleepers. He talked with Timothy Hackworth, the line's managing engineer, who gave him an "Account of the Comparative

¹⁷ "Diary of Horatio Allen," transcribed by the late W. J. Coughtry, Messrs. Jesse Burt and F. Stewart Graham, *Railway & Locomotive Historical Society Bulletin* No. 89 (Nov., 1953), pp. 97-138.

¹⁸ Letter, Jervis to Allen, March, 1828, in J. B. Jervis Papers, Jervis Library, Rome, New York.

Expense of Horses and Locomotives" for the period from September 1, 1826, to June 30, 1827. After careful examination and lengthy discussion with Hackworth and Nicholas Wood, he found that fixed wheels, of diameters ranging from 1 to 3 feet and revolving axles, had proved most successful on these roads.

Most of all, Allen came away from Newcastle and Killingworth convinced of the superiority of locomotives. He watched them in operation, rode on them, talked with engineers about them, studied drawings and plans; from these experiences he wrote to Jervis, "you will come to the same conclusions as to the superior utility and greater economy of the Locomotives. I am fully of opinion too that the present Locomotive Engine is an imperfect machine compared with what it will be 10 or 12 years hence."¹⁹ With this as a background, Allen placed orders with two locomotive manufacturers, Robert Stephenson & Co., of Newcastle, and Foster, Rastrick & Co., of Stourbridge. He purchased one engine from the Stephenson firm, not only because of the assistance and valuable practical information that had been provided by the father and son but also because of their work with multitubular boilers, in which he had great confidence. Three Foster & Rastrick engines were ordered, in part because each cost £110 less than Stephenson's, but more so because they had a straight-flue boiler with a cross-beam drive, the usefulness of which Allen wanted to investigate. The plans for the locomotives, the proportion of the parts, and all details were left to the builders' judgment, since, as Allen put it, "their experience far exceeded mine."²⁰

The purchase of these locomotives is a noteworthy example of courage and foresight. It is only to be regretted that Allen did not remain in England to supervise their construction for only then could the weight requirements imposed by Jervis have been enforced. It is also regrettable that Foster & Rastrick's "Stourbridge Lion" should have been the first tested by the D&H in 1829 for it weighed better than 7 tons, was too heavy for the line's rail, and momentarily soured Jervis and the company on locomotives. One can only imagine what would have happened had Stephenson's "Pride of Newcastle" been tested first; it was lighter in weight and probably would have been successful in operation, but more tantalizing is the fact that it was a prototype of the "Rocket" which was to win such world renown the following October at Rainhill.

¹⁹ Letter, Allen to Jervis, n.d., in William Conrad Kessler, "Horatio Allen's Impressions of English Railways," *Railway & Locomotive Historical Society Bulletin* No. 61 (May, 1943), p. 47.

²⁰ Allen, *Railroad Era*, p. 17.

Allen's role in the development of early American railroads was not limited to the Delaware & Hudson. In 1829 he was appointed Chief Engineer to the South-Carolina Canal & Rail Road Company and immediately called for steam locomotives on this line. Like the lines to the north, the South-Carolina had used every means within its resources to gather information on the relative advantages of railroads and canals and on the use of locomotives and horses on the railroads. Delegations of its promoters visited railroads under construction; one of its board members, E. L. Miller, inspected the Liverpool & Manchester line and attended the Rainhill trials; and reports submitted to the L&M by Walker and Rastrick early in 1829, and by Robert Stephenson and Joseph Locke later that year, were analyzed.

From these data, Allen claimed that locomotives were still in the process of developing and offered the best answer to the South-Carolina's needs. First in September and again in November, 1829, he called for their adoption and the following January the board acted with decisive resolution: "The locomotive shall alone be used. The perfection of this power in its application to Rail-Roads is fast maturing, and will certainly reach, within the period of constructing our Road, a degree of excellence which will render the application of animal power, a gross abuse of the gifts of genius and science." The construction of this line differed somewhat from the others, but Allen had a good reason for this, saying "an indispensable condition of every plan . . . [is] that its cost must come within the capital provided."²¹ For this reason, he used timber rails (of southern pine) onto which rolled iron bars, 2½" by ½", were spiked, and built the line on well-driven piles, this last to achieve a permanent foundation, a level surface, and as straight a line as was practicable. At least eight English-built locomotives (from the shops of Edward Bury of Liverpool and R. Stephenson & Co.) were bought by the South-Carolina in the first five years of its operation and at least two locomotive engineers who had had considerable experience on the L&M were in its employ in 1833.

Back in Baltimore, the plan to send a deputation to Europe did not materialize until the latter part of 1828; this is understandable in view of the wish of company directors to get a line laid out, surveyed, and under construction before allowing the engineers to leave. With this preliminary out of the way, three engineers,

²¹ *Ibid.*, p. 28. See also letter, Allen to the President and Directors of the South-Carolina Canal & Rail Road Company, Jan. 10, 1830, in Horatio Allen, *Reports to the Board of Directors of the South Carolina Canal & Rail Road Company* (Charleston, 1831), pp. 3-6.

Jonathan Knight, Captain William Gibbs McNeill, of the U.S. Topographical Engineers, and Lieutenant George Washington Whistler, of the U.S. Army, were sent to England "for the purpose of gaining information relative to the most approved construction of Rail-roads . . . and the application of a moving power upon them."²² Col. S. H. Long, who did not make the trip because the directors wanted him to remain on the construction site, prepared 11 topics ranging from examples to illustrate the economy and efficiency of railroads to designs of scales for weighing carriages, to be investigated. During their six months in England (from November, 1828, to May, 1829), the three engineers talked with Thomas Telford, the Stephenson, Walker, Hackworth, Joseph Locke, and Hartley, all of whom gave generously of their time and technical knowledge. With William Brown acting as intermediary, the Americans visited the Liverpool & Manchester, the Stockton & Darlington, and several smaller lines. They saw stationary and locomotive engines in operation and at one time Hackworth conducted a number of experiments with locomotives for them on his line. As a result of these observations and experiments, the deputation came to two significant conclusions. First, they were satisfied with the location of the B&O road as laid out before their departure and they looked forward "with confidence" to the successful construction of the line.²³ Secondly, despite the feeling of many that locomotive engines could be used only on a straight, level line, the engineers found that locomotives could climb inclined planes of up to 72 feet in a mile and operate "with much less disadvantage in curvatures than we had apprehended."²⁴

Unfortunately Knight, McNeill, and Whistler did not prepare a formal report of their findings following their return in May, 1829. President Thomas ordered them to get on with the work of supervising the construction and to write their report "at a later date"; as one might expect the press of work and the passage of time made a report less and less significant and one was never prepared.²⁵ However, three days after their return, they described their travels in a manner that must have encouraged the stockholders: "[they

²² Letter, P. E. Thomas to Board of Engineers, Oct. 6, 1828, in Lt. Col. S. H. Long and Capt. Wm. Gibbs McNeill, *Narrative of the Proceedings of the Board of Engineers, of the Baltimore and Ohio Rail Road Company, from its Organization to its Dissolution*, 2 parts (Baltimore, 1830), Pt. I, p. 76.

²³ Letter, J. Knight, Wm. G. McNeill, and Geo. W. Whistler, to Philip E. Thomas, Dec. 9, 1828, in Baltimore & Ohio Railroad Company Papers, Maryland Historical Society, Baltimore.

²⁴ Letter, J. Knight, Wm. G. McNeill, and Geo. W. Whistler, to Philip E. Thomas, Jan. 26, 1829, in "Rail Roads," *Niles' Weekly Register*, Vol. XXXVI (Apr. 4, 1829), pp. 92-93.

²⁵ Long and McNeill, *Narrative*, Pt. II, pp. 205n-206n.

have resulted in an] entire conviction of the general efficacy of rail roads as speedy, certain and economical means of conveyance." ²⁶ The board recognized the significance of these observations for it was sure that the main object of the mission had been attained, that is, "in bringing within reach of the Directors, and at their control a knowledge of the means best recommended by previous experience in the execution of similar works." ²⁷

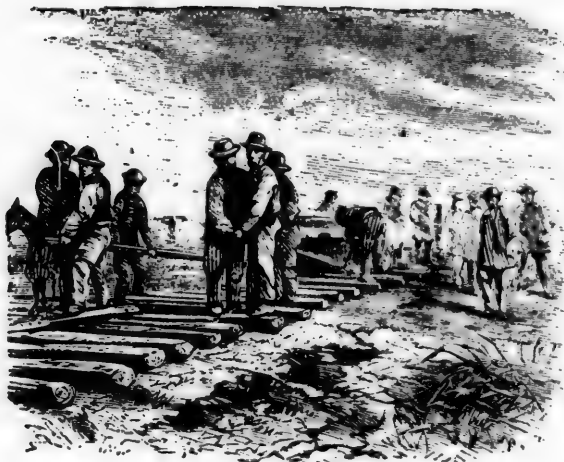
The meaning of all this takes on perspective when we return to the Massachusetts Directors of Internal Improvement and their report of 1830: ". . . we have been called on to receive, in astonishment, the accounts . . . of recent experiments in England, upon the capacity and adaptation of Steam Carriages, as a self-moving power over Rail Roads. This invention promises to produce a new era in the business and arrangements of Society." ²⁸

²⁶ *Third Annual Report, of the President and Directors, to the Stockholders of the Baltimore and Ohio Rail Road Company*, Oct. 12, 1829, p. 11.

²⁷ *Ibid.*

²⁸ *Report of the Directors of Internal Improvement on the Subject of Rail Roads*, p. 8.





Anglo-American Merchant Bankers and the Railroads of the Old Northwest, 1848-1860

As distrust of American investments lessened, conservative international brokers allowed themselves to be drawn into an economic orbit with ever-widening western limits. Short-term credits to support an active agency business in railroad construction materials led inevitably to longer term commitments. The merchant bankers supplied the facilities for transatlantic capital exchange and by absorbing the best rail and government issues helped create an American market for all grades of railroad securities.

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Among the various groups aiding the building of a railroad network in the Old Northwest were English merchant bankers. This article seeks to analyze the services performed in this connection by two such London firms: Baring Brothers & Company and George Peabody & Company. The first was a well-established

house with long experience in channeling the export of capital to the undeveloped United States. The second was organized in 1852 by its senior partner, an American who had turned after 1837 from dry goods importing in Baltimore to a diversified interest in American trade and finance.¹ The difference in age and status of the two financial houses made certain that some of their policies would be dissimilar, though in general the techniques of both conformed to established practices of the London money market. Of that community and its behavior the Barings and Peabody were therefore satisfactorily representative.

For purposes of analysis several questions have been raised. By what process did London merchant bankers get interested in the railroads of the Old Northwest? What was the nature of the relations between the London firms and the railroads? What were the procedures and techniques used in extending financial aid from London to transportation companies in the Middle West of the United States? In comparison with other agencies, how important were the Anglo-American merchant bankers in forwarding the development of railroads in the Old Northwest? Not all these questions could be answered with exactness, as the reader will observe, but some qualitative evaluations have been made.

Peabody and the Barings were only two in the small group of Anglo-American merchant bankers, almost all with headquarters in London, who facilitated the financing of practically all the foreign operations of American businessmen and governmental institutions. In the 1850's a small number of these houses (including N. M. Rothschild & Sons, Matheson & Company, Magniac, Jardine & Company, McCalmont & Company, Frederick Huth & Company, Baring Brothers & Company, Brown, Shipley & Company and George Peabody & Company) dominated the field of financing American trade and marketing American securities abroad. Other firms, such as Overend, Gurney & Company, were interested in American business as a side line. Still others specialized in one phase of American trade, such as marketing cotton. A host of smaller houses competed with all these firms, but few of them ever approximated the multiplicity of functions performed by the true merchant bankers in the first group.

Merchant banking houses in this period afforded as many services to their clientele as do a whole range of business firms today. In addition to buying and selling securities on commission and on

¹ The material in this article is largely derived from the George Peabody Manuscripts deposited in the Essex Institute, Salem, Massachusetts, and from the *Baring Papers* in the Public Archives of Canada in Ottawa.

their own account, for which they are best known to economic and business historians, these Anglo-American firms also bought and sold merchandise and specie for others as well as for themselves, lent their credit for varying rates of commission by accepting bills of exchange drawn in all parts of the world, engaged in exchange operations upon their own account and upon commission, received deposits, made loans, issued credits to travelers, acted as agents for many private and public institutions, and served as credit rating agencies for American merchants. Although this list does not encompass the full range of functions of the merchant banker, perhaps it is sufficient to indicate that members of the group were excellent examples of diversified capitalists at a time when specialization in business was becoming more and more common. Railroading in the Old Northwest was obviously only one of their manifold interests.²

Many issues relating to American business enterprise had to be faced before the demands from the Old Northwest for capital and capital goods could be answered. Among the most important questions arising in 1847 was whether or not American governmental agencies, corporations, and business houses in general were worthy to receive credit on an extensive scale from European investors and merchant bankers. Even if that query were answered in the affirmative, the Anglo-American houses still had to decide whether or not to give assistance to railroad companies in particular. All over Europe corporations for this purpose had been organized and operated on a basis closely approximating speculation, as interpreted by the more conservative banking and mercantile fraternity, and railroads in the United States seemed to be at least as experimental as those in England and on the Continent. Moreover, if any American railroads were to be accorded aid, why not confine the advance of capital to well-established companies in the eastern portion of the United States rather than to those projected between small towns through sparsely settled areas in the West?

A variety of circumstances contributed to the resumption of the flow of European capital to the United States from Europe after 1847.³ Between 1842 and 1848 several of the states that had earlier defaulted upon their interest payments had restored their credit in

² R. W. Hidy, "The Organization and Functions of Anglo-American Merchant Bankers, 1815-1860," *The Journal of Economic History*, Vol. I (Supplement, 1941), pp. 53-66; N. S. B. Gras, *Business and Capitalism* (New York, 1939), pp. 67-119.

³ The following analysis of the resumption of capital flow to the United States between 1848 and 1852 is derived from R. W. Hidy, "A Leaf from Investment History," *Harvard Business Review*, Vol. XX (Autumn, 1941), pp. 63-74; R. W. Hidy, *The House of Baring in American Trade and Finance: English Merchant Bankers at Work, 1763-1861* (Cambridge, 1949), pp. 408-411; and R. C. McGrane, *Foreign Bondholders and American State Debts* (New York, 1935), pp. 270-271.

whole or in part. Pennsylvania, Maryland, Indiana, Illinois, and Louisiana, if in need of capital, could now expect at least a hearing of their demands, on the basis of the fact that they were attempting to meet their obligations. Among former borrowing states Massachusetts, New York, and Ohio had maintained their credit throughout the depression and post-depression years, although their reputation in Europe had suffered during the 1840's just because they were members of a Union which had included defaulting members. As soon as conditions permitted, these sound states could expect to receive capital on reasonable terms. By the same token, the federal government, which, in the opinion of European investors, had undergone a credit decline through association with repudiators and defaulters, experienced a commensurate improvement in its credit rating as soon as some of the offending states again displayed good faith regarding their obligations. Only Florida, Michigan, Arkansas, and Mississippi were then considered beyond redemption by investors with available capital.

Several other factors contributed to the restoration of American credit between 1848 and 1852. The successful conclusion of the war with Mexico revealed the tremendous energy of the nation and added vast new territories to an already large area ready for exploitation. Discovery of gold in California hastened the movement of population westward, stepped up the speed of development of some regions, and afforded a great reservoir of gold supply for a fundamentally sound and increasingly prosperous American economy. Furthermore, by 1852 the doubts regarding the stability of the Union growing out of the Mexican Cession and the Wilmot Proviso had been resolved by the widespread acceptance of the Compromise of 1850.

In the meantime conditions in Europe proved favorable to exporting capital to other parts of the world. Specifically, European investors found themselves more willing to discriminate between sound and unsound American risks and more inclined to harken to the growing American demand for capital. The collapse of the British railway boom in 1845 and 1847 discouraged investment of funds in that form of corporation securities in Great Britain. Coincidental with the distrust in that branch of investment many British rail manufacturers, with plants recently enlarged to meet the European demand, sought new export markets. On the Continent doubts existed as to the strength of the railways prior to the crisis of 1847-1848. These doubts were enhanced by the crisis, and a large group of investors sent their money scurrying to England

during the revolutionary outburst and subsequent political uncertainty between 1848 and 1850. "Hot" or "nervous" money thus contributed to the resumption of capital flow to the United States and to the restoration of American credit.

By 1852 Anglo-American merchant bankers were thoroughly committed to implementing the flow of British and Continental capital to the United States. N. M. Rothschild & Sons began the process in 1847 by investing \$4,000,000 in United States Treasury notes and converting a portion to United States bonds issued in the same year. Baring Brothers & Company and George Peabody, in conjunction with J. G. King & Sons of New York and Corcoran & Riggs of Washington, D.C., floated almost all of the \$16,000,000 federal loan of 1848. In the next four years the Barings identified themselves with issues of bonds by the governments of the United States, Maryland, Massachusetts, Ohio, Pennsylvania, Tennessee, Boston, New York, New York City, Jersey City, and New Orleans.

During the same years merchant bankers gradually experienced a similar change of heart with regard to the marketing of American railroad securities. Until this time the Barings had refused to allow their name to be associated with the marketing of either stocks or bonds issued by an American railroad company. Throughout the 1830's and 1840's the managing partners of this firm had persisted in regarding such securities as too speculative to be regarded as sound investments for themselves or for their clients. The same point of view was expressed after 1848 in answer to overtures from the New York & Erie, the Philadelphia & Reading, the Vermont Central, the Hudson River, the Baltimore & Ohio, and the Ogdensburg Railroad companies. By 1852, however, the Rothschilds and the McCalmonts were marketing the bonds of the Erie and the Reading companies, rail manufacturers for more than two years had been taking American railroad securities in part payment for rails, American correspondents were urging the Barings to take an active part in selling both American railroad stocks and bonds, and the scarcity of American governmental securities was causing a number of European and British investors to request that some of their funds be placed in American railroad bonds.

Baring Brothers & Company could resist the tide no longer. Between July and October, 1852, the firm was publicly committed to dispose of or to retain \$650,000 in bonds of the Eastern Railroad Company of Massachusetts and \$1,300,000 in bonds of the Pennsylvania Railroad Company.

As far as Baring Brothers & Company was concerned, by 1852

American credit was definitely restored, a fact of significance for financing American railroads. The flow of capital to the United States had been resumed, even to railroad corporations formerly viewed with distrust. Inasmuch as the House of Baring was regarded by both American businessmen and by competitors as the leading firm in the group predominantly concerned with American trade and finance, the effect of these moves by such a conservative firm was to encourage other Anglo-American merchant bankers to do likewise.⁴ One of the chief obstacles to extending aid to western railroads had been removed, or, stated differently, Anglo-American merchant bankers became interested in railroads of the Old Northwest because American credit in general was regarded as sound.

Nevertheless, to venture into marketing securities for western railroads required much thought and care in selecting the specific companies to aid. Before considering the roads in the Old Northwest, the Barings, for example, had to overcome several previously held convictions. Their general distrust of American corporations, based upon the failure of the New York Merchants Exchange Company to meet its obligations in the 1840's, had to be eliminated. More than that, as noted, not until 1852 was the House won over from the opinion that American railroad companies, even eastern ones, were not stable enough to warrant investment even by the firm itself. To these views destined for scrapping must be added the persistent idea that the east-west trunk lines were the soundest American roads in conception and that the Baltimore & Ohio was the only one, as late as 1850, with which they might develop an active cooperation.

Moreover, the economic foundations for successful railroads seemed to be lacking. By European standards population was sparse and large cities were few throughout the Old Northwest. Wisconsin had just been admitted as a state in 1848, Michigan finances were definitely unsatisfactory, and Indiana and Illinois had merely effected compromise settlements with their creditors. The stability of Ohio finances was noteworthy, but merely accentuated the fact that the entire region east of the Mississippi and north of the Ohio was either a part of the unpredictable frontier or not far removed from it. From experience the Barings knew that frontier businessmen often confused dreams with realities.

On the other hand, circumstances favorable to the extension of the interest of the Anglo-American merchant bankers to the rail-

⁴ *Peabody Manuscripts*, Essex Institute (Hereinafter cited *EIPM*), G. Peabody to Wm. Hoge, May 7, 1852; G. Peabody & Co. to Duncan, Sherman & Co., Oct. 1, 1852; Watts Sherman to Peabody, Aug. 8, 1852.

roads of the Old Northwest outweighed the deterring factors. After all, the finances of Illinois, Indiana, and Michigan *were* on a more satisfactory basis through compromises with creditors, sale of public works, higher taxes, and better collections thereof. This fact, coupled with a rapid increase in population and wealth and a consequent sounder basis for taxation, promised a greater measure of reliability for the future. Eastern trunk lines to tap the Ohio Valley were so near completion that rapid communication between East and West was guaranteed by 1852. All railroad securities, including those of the northwestern roads, carried high rates of interest, which were attractive in themselves. Thomas Baring visited the United States in 1852 and considered the prospects promising in spite of the railroads' belated arrival on the relatively unpopulated prairie of Illinois.⁵

Finally, the firms in England experienced difficulty in resisting the persuasion of numerous wealthy and trusted American friends who had ventured into forwarding the railroad development of the Old Northwest. Confidence in John Murray Forbes of Boston, based upon mercantile relations with him for many years, was one of the main reasons why the Barings lent their aid to his railroad projects beyond the Alleghenies.

As a matter of fact, both Peabody and the Barings drifted into, rather than carefully decided upon, policies in connection with financing railroads of the Old Northwest. The considerations mentioned undoubtedly were weighed by the partners of the two firms, but previous practices of Anglo-American merchant bankers were instrumental in leading them into the new area. As commission merchants they were accustomed to buying and selling merchandise for others. Rails, chairs, and spikes for railroads were merchandise. The Barings had been conducting such transactions for eastern and southern railroads for more than 15 years. Among their clients were the Baltimore & Ohio Railroad Company, the Western Railroad Corporation of Massachusetts, and various New York railroads. Peabody's first large venture in this type of transaction came in September, 1849, with the signature of an agreement to supply, on joint account with Corcoran & Riggs of Washington, D.C., 10,340 tons of railroad iron to the Nashville & Chattanooga Railroad Company. What could be more natural than the extension of similar services to the railroads of the Old Northwest?⁶

The activities of Peabody and his firm serve as excellent illustra-

⁵ *Ibid.*, Allen Robbins to Peabody, Nov. 22, 1852.

⁶ *Ibid.*, Agreement between V. K. Stevenson, president of the Nashville & Chattanooga Rail Road Co. and George Peabody, Sept. 13, 1849.

tions of the methods of an Anglo-American merchant banker in purchasing iron for railroads in the Old Northwest as well as for those in other parts of the United States. Encouraged by the success of the joint operations with Corcoran, Peabody soon entered on various individual contracts with different railroad companies; several of these were in New York state and in the South. When Watts Sherman, a New York banker, visited England early in 1851, he interested Peabody in purchasing 4,500 tons of rails for the Michigan Central.⁷ Peabody then arranged more adequate machinery for transacting such international business.

As the orders for iron from the Old Northwest and other regions increased, Peabody decided to utilize the flexible and satisfactory device of a joint account to increase his share of the business. A New York house, Chouteau, Merle & Sanford (later P. Chouteau, Jr., Sanford & Company), whose knowledge of the West had grown through Chouteau's earlier participation in the fur trade, sent an agent, U. A. Murdock, to London to make special arrangements for the foreign side of its iron business. By April he had negotiated a joint account agreement with Peabody. The contract stipulated that the merchant banker in London was to be free, because of transactions already under way, to make separate arrangements in certain states and with companies specifically named (including the Cleveland & Pittsburgh Railroad Company and the Michigan Central Railroad Company). All other iron operations were to be for the joint account.⁸

The New York house looked after the American side of the transactions. Agents traveled throughout the western states studying conditions and taking orders for rails.⁹ The majority of the orders on joint account were obtained by its men. The New York partners also attended to collections, remittance of funds, and the sale of railroad bonds in the United States. At first Peabody's own functions were to buy rails, attend to their shipment, carry on the banking part of the business in Europe, and compete with other merchant bankers for a contract if an agent of an American railroad went to England to place an order.

As the joint account operations grew, Peabody found the mercantile aspect of the iron contracts onerous. Iron purchasing demanded a specialized knowledge. Different railroad companies wanted various

⁷ *Ibid.*, Peabody to G. Upton, Treasurer, Michigan Central Railroad Co., Mar. 7, 1851.

⁸ *Ibid.*, Peabody to U. A. Murdock, April 15, 19, 1851; Peabody to Chouteau, Merle & Sanford, June 8, 1851; Peabody to P. Chouteau, Jr., Sanford & Co., June 4, 1852. After May 10, 1852, the partners were Pierre Chouteau, Jr., John F. A. Sanford, and U. A. Murdock.

⁹ *Ibid.*, U. A. Murdock to Peabody, April 10, 1851.

weights and types of rails and, although later the "Erie" and "Lafayette" patterns were popular, the general lack of uniformity added to the difficulty of making contracts. Discussion as to the fit of chairs and stipulations as to the exact size of spikes created a flow of letters. It was one thing to drive a good bargain with an iron manufacturer and another thing to see that his product met the specifications of the railroads.¹⁰

Shipping also demanded much detailed attention. Earlier, when sending iron to New Orleans, Peabody had found it comparatively easy to secure cheap freights at the season when ships were going out to load cotton. Now that he was interested in shipments to northern ports, he endeavored to ship in vessels which would return with Canadian lumber. But difficulties arose. Insurance companies were not eager to carry the risks, especially on iron carried on ships bound to the St. Lawrence. Big vessels were not willing to go to Wales, where most of the rails were purchased, to load directly, and coasters for gathering the rails were often scarce. Furthermore, when the iron rails were transhipped at Liverpool, it was difficult to escape paying the American tariff on these coastal expenses.¹¹

Hence, a third party was added to the joint account to take over the functions of buying and shipping. C. M. Lampson, a Vermonter, later to be knighted for his work with the transatlantic cable, was the "shrewd" American chosen to share the profits in return for his trading abilities. Like the firm of Chouteau, Merle & Sanford, Lampson had gained his training in marketing from the fur trade. It was as agent selling furs for John Jacob Astor that he had risen to be one of the outstanding American businessmen in London in the decade before the Civil War.¹²

As the business grew, further modifications were made in the joint agreement. In January, 1853, plans were made to put it on a more permanent basis. The principals agreed to allow all profits on the iron transactions to accumulate until the sum reached \$1,000,000, when the excess was to be divided. Inasmuch as most of the orders were obtained in the United States, the New York firm, now P. Chouteau, Jr., Sanford & Company, was to have one half of the profits and the two London principals were each to have one fourth. All operations in metals in which any of the parties

¹⁰ *Ibid.*, Peabody to Chouteau, Merle & Sanford, Aug. 22, 1851; Chouteau, Merle & Sanford to G. Peabody & Co., Feb. 20, 22, 1852.

¹¹ *Ibid.*, e.g. Peabody to Hamden & Co., Oct. 15, 1851; Chouteau, Merle & Sanford to Peabody, Aug. 5, 1851; Peabody to Cyrus Prentice, president, Cleveland & Pittsburgh Railroad Co., July 26, 1850.

¹² *Ibid.*, U. A. Murdock to Peabody, April 10, 1851; K. W. Porter, *John Jacob Astor, Business Man*, 2 vols. (Cambridge, 1931), p. 836.

became interested were now to be on joint account. Any of the principals could make contracts for sale and purchase of metals, but the joint account was not to be interested, at any one time, in railroad securities beyond \$400,000, and the stocks and bonds were to be of such character as could be expected to sell in the United States.¹³

There were four distinct methods by which the importation of iron was handled by the partners in this joint account during the 1850's. Occasionally they took pig iron on consignment and arranged credit advances equal to two thirds or three quarters of the value of the metal shipped.¹⁴ More often they made contracts with different railroad companies to deliver iron rails at a fixed price either at Liverpool, free on board, or in the United States, in New York, for example. The contracts with the iron masters were then made and the partners' profits depended upon their success in making iron contracts and securing reasonable freights. Later, in a rising market the principals objected to the risk in this type of transaction, termed by Peabody their "bear" account; they preferred to buy rails on order, usually at 2½ per cent commission on the purchase price, a method which throughout the period was applied to spikes and chairs.¹⁵ Another method was used on occasion: Lampson purchased prior to and in anticipation of sales of rails, and the New York house, by making very favorable arrangements for storage in the United States, was able to supply this "iron" on rush orders.¹⁶ How important this last device was it is difficult to ascertain, but the fact that railroads did not have standardized specifications for rails made it difficult to buy in quantity in advance of definite orders from a particular railroad company.¹⁷

There is ample evidence that iron for many northwestern railroads was purchased under the joint account prior to 1857. Some examples serve to illustrate the specific working of the account. The New Albany & Salem Railroad Company purchased rails in ex-

¹³ *EIPM*, C. M. Lampson to Peabody, July 26, 1852; Chouteau, Merle & Sanford to G. Peabody & Co., March 16, 1852; G. Peabody & Co. to Chouteau, Sanford & Co., Jan. 25, March 8, April 14, Sept. 13, 1853; Chouteau, Sanford & Co. to G. Peabody & Co., April 10, 1853.

¹⁴ *Ibid.*, Peabody to U. A. Murdock, June 20, 1851; Peabody to H. Ferguson, Glasgow, Oct. 13, 1851.

¹⁵ *Ibid.*, Chouteau, Sanford & Co. to G. Peabody & Co., May 14, 1852.

¹⁶ *Ibid.*, e.g. U. A. Murdock to Peabody, April 10, Sept. 19, 1851; Chouteau, Sanford & Co. to C. M. Lampson, Sept. 25, 1852.

¹⁷ *Ibid.*, C. M. Lampson to U. A. Murdock, unsigned, May 4, 1852. The purchases of iron were made through many manufacturers. Among the makers of rails most favored in the United States were J. Guest & Co., William Crawshaw, and the Ebbw Vale Co., one of the largest in the British Isles. Several smaller contracts were placed with other producers, however, and the Aberdare Iron Works and the Rhymney Iron Co. in Wales, and G. & C. Kreglinger of Antwerp, all filled orders. See *ibid.*, Chouteau, Merle & Sanford to G. Peabody & Co., Sept. 19, 1851.

change for bonds. The joint account received 2½ per cent commission on the iron, 1 per cent on the freight, and 2½ per cent on the proceeds of the bonds.¹⁸ The Junction Railroad Company (Cleveland to Toledo) placed an order with Chouteau, Merle & Sanford in 1852 at the same time that a rival line, the Toledo, Norwalk & Cleveland Railroad Company, was arranging purchases through both Peabody & Company and Baring Brothers & Company. Other railroads mentioned in the letters of Peabody & Company included the Alton & Terre Haute, the Milwaukee & Mississippi, the Cincinnati, Logansport & Chicago, the Lawrenceburg & Upper Mississippi, the Ohio & Mississippi, and the Chicago, St. Paul & Fond du Lac Railroad companies.¹⁹

The uncertainty of the iron market and the rapidity of the change in price made iron operations highly speculative. Iron rails, which had fallen to £4.15 a ton in September, 1851, rose to £9.10 per ton in December, 1852. Iron manufacturers who bartered iron for bonds were willing to do so only when they could charge a higher price for their product to compensate for the risk involved. Orders for rails for Russia, while not yet large, had an influence on the market before the close of 1852. Even more significant, the extension of credit facilities to railroads increased the demand for iron. In 1854 and 1857 there were serious upsets in the iron market, but throughout the decade of the 1850's there were large purchases of rails in Great Britain for American railroads.²⁰

These operations laid the foundations for later activities of the House of Peabody and its successor in transactions with American railroads. When the partnership of P. Chouteau, Jr., Sanford & Company was dissolved in 1857, C. M. Lampson & Company and Peabody & Company signed a new contract. Three years before this date, Peabody & Company had added another American partner, J. S. Morgan, who became familiar with the workings of the joint iron account. Inasmuch as it was generally profitable, Morgan saw no reason to discontinue its operation when Peabody left a greater share of decision-making to this younger partner. Consequently, when Peabody retired in 1864, the succeeding firm of J. S. Morgan & Company found it perfectly natural to continue the

¹⁸ *Ibid.*, Chouteau, Merle & Sanford to Peabody, July 15, 1851; Feb. 17, 1852; G. Peabody & Co. to Chouteau, Merle & Sanford, March 12, 1852.

¹⁹ See especially *ibid.*, Chouteau, Merle & Sanford to G. Peabody & Co., April 9, 20, 23, 1852. See list of railroads built during the decade of the 1850's in the Old Northwest in Frederic L. Paxson, "The Railroads of the 'Old Northwest' before the Civil War," *Transactions of the Wisconsin Academy of Sciences, Arts, and Letters*, Vol. XVII, Part I, No. 4 (Madison, 1912), pp. 243-274.

²⁰ *EIPM*, 1851-1854, *passim*, especially G. Peabody & Co. to Chouteau, Merle & Sanford, Aug. 1, 1851, March 12, 1852; Chouteau, Merle & Sanford to G. Peabody & Co., Sept. 19, 1851; Jan. 23, 1852; G. Peabody & Co. to C. K. Hamilton, Dec. 10, 1852.

many connections with American railroads in the Old Northwest and elsewhere.²¹ His son, J. P. Morgan, already established in the United States, was hence started on an important relationship for the development of his later financial dealings with railroads.

In the years before the Civil War the Anglo-American merchant bankers had used several methods to aid the railroads of the Old Northwest in obtaining credit. In some cases the companies received aid for the short term only; in others, long-term credit was arranged through the sale of securities. In some instances the credit was granted directly, by merchant bankers, whereas on other occasions the credit from England reached the northwestern railroads in a very indirect fashion.

Short-term credits were provided in a variety of forms. In some cases, following the signing of the contract for rails, the merchant banker purchased and paid for the iron in England in order to obtain the cash discount; this method had the added advantage of reducing the amount on which the United States tariff was assessed.²² In such cases the merchant banker might be in cash advance from the moment of purchase; the length of the credit granted to the railroad company ran from 60 days, the usual length of bills remitted to England to cover debts, to 18 months, as in the case of the arrangement made between the Toledo, Norwalk & Cleveland Railroad Company and the Barings in 1852.

In more typical transactions the merchant banker extended short-term credit without making an immediate cash advance. Peabody & Company lent the credit of its name by accepting the drafts of the iron manufacturer at three, four, or six months' date; the merchant banking house expected that the American railroad company or its agent would remit funds to meet the obligations when due. In the meantime the iron manufacturer had discounted the accepted drafts in the London market, thus drawing for his immediate payment upon the reservoir of English funds awaiting short-term investment. That the commitments of merchant bankers for these purposes were not inconsiderable is indicated by the fact that during 1853 the drafts by iron manufacturers on Peabody & Company exceeded £400,000, about half of which was on behalf of one iron producer, William Crawshaw.²³

Upon occasion, the merchant bankers granted credit for short

²¹ *Peabody Manuscripts*, Morgan, Grenfell & Co. Ltd., London (hereinafter cited *MG&CO.PM*), G. Peabody & Co. to Chouteau, Sanford & Co., April 14, 1853; C. M. Lamson & Co. to G. Peabody & Co., Aug. 18, 1858. Cf., "Morgan, Grenfell & Co.'s New Home," reprint from *Banker's Magazine* (London, Nov., 1928).

²² *EIPM*, Peabody to Blake & Ward, Boston, Oct. 29, 1850; U. A. Murdock to Loah, Wilson & Bell, May 16, 1851.

²³ *EIPM*, 1853, *passim*.

periods to aid railroad companies in meeting special financial crises. During the fall of 1857, when the Michigan Central was so pressed that interest payment on its bonds was suspended, the Barings afforded aid by direct loan. Assured by an adviser, W. H. Swift, that the railroad was still sound in spite of the exigencies of the time, T. W. Ward, the agent of the Barings in the United States, advanced to the company a credit of £30,000; security was provided by the guarantee of J. M. Forbes, the leader of Boston investors in the Michigan Central, and the collateral of the company's bonds counted at 70 per cent of face value. In addition to yielding interest and commission to the Barings, such assistance preserved the good will of many old American friends (J. M. Forbes, Nathaniel Thayer, Erastus Corning, and others).²⁴ Again in 1860, when the Michigan Central was forced to raise funds to meet maturing bonds, Baring Brothers & Company permitted the railroad to issue a draft for £70,000 at 60 days' sight on the house for a commission of 1 per cent. The arrangement included provision for extending the credit by redrawing at the end of the term of the draft.²⁵

Very often remittances to cover the acceptances failed to arrive in time to liquidate obligations. The merchant banker was then in cash advance and charged interest to the American railroad company, at the rate of either 5 or 6 per cent. To take care of such contingencies, contracts usually provided that the companies post securities as collateral and that the merchant banker should have the right to exercise an option to purchase or to dispose of the securities, usually bonds of the company itself, at a given price.

The transaction between the Barings and the Toledo, Norwalk & Cleveland Railroad Company is a case in point. This was the first venture by the English firm into purchasing iron for a railroad in the Middle West and illustrates the nature of the competition with Peabody. Charles L. Boalt, the president of the company, arrived in London in the spring of 1852 with \$350,000 first mortgage, 7 per cent bonds of the railroad. He wished to sell the bonds and buy rails. On March 1, 1852, he signed a contract with George Peabody & Company for 1,980 tons of rails at \$30 per ton, delivered in New York; 12 months' credit was granted and bonds were put up as collateral for the payment of the debt.²⁶ On March 19 the Barings

²⁴ *Baring Papers, Official Correspondence* (hereinafter cited *BPOC*), T. W. Ward to Baring Brothers & Co., Sept. 10, 1857. The Barings also sold for Forbes a number of Michigan Central bonds in Nov. and Dec., 1857. *Baring Papers, Miscellaneous Correspondence* (hereinafter cited *BPMC*), Forbes to Baring Brothers & Co., Nov. 9, 1857; *Baring Papers, Letter Books* (hereinafter cited *BPLB*), Baring Brothers & Co. to Forbes, Dec. 4, 1857.

²⁵ *BPLB*, Baring Brothers & Co. to Ward, Feb. 3, 1860; *BPOC*, Ward to Baring Brothers & Co., Feb. 20, 1860.

²⁶ *EIPM*, Agreement between C. L. Boalt and G. Peabody & Co., March 1, 1852.

undertook to buy for the same railroad 4,000 tons of rails on 18 months' credit and to lend the company \$20,000 in cash, at 7 per cent, on the security of its bonds. To his partners on joint account Peabody explained his failure to acquire the whole order by stating that the Barings were willing to grant six months' longer credit terms.²⁷

At the outset of the negotiations the Barings contemplated being reimbursed for their outlays of funds to buy the iron from proceeds of sales of the bonds of the Toledo, Norwalk & Cleveland. They took an option for two months to purchase on their own account \$350,000 of the securities, \$235,000 at 85 and \$115,000 at 90. The Barings received conflicting advices from the United States as to exercising the option; their friends on the Michigan Central advising against buying the bonds. It was this point of view that Ward urged upon his London principals. As a consequence, instead of taking the bonds, Baring Brothers & Company had the railroad company give a promissory note of \$123,565, payable in 18 months and backed by the railroad's bonds as collateral security, for the debt arising from the purchase of the iron rails. Later, in order to collect the debt, the Barings sent the bonds to Ward for sale in New York and the proceeds were remitted to London as soon as available. Actually an extension of four months was made on \$50,000 of the obligation.²⁸ Although the bonds were eventually marketed in the United States, the Barings and Peabody in this instance had provided the important short-term credit necessary for the purchase of the rails.

In some cases Anglo-American merchant bankers were instrumental in providing a market in Europe for the securities of the railroads of the Old Northwest. One type of connection between purchasing iron and the extension of long-term credit from Europe came when the payment to the manufacturer for rails was made in American railroad bonds, the transfer being facilitated in some instances by the merchant banker. A case in point was the contract, made in 1851 by Chouteau, Merle & Sanford with the New Albany & Salem Railroad Company for 2,000 tons of rails to be paid for in the railroad's own bonds.²⁹ The export of British capital was directly associated with an export of goods.

²⁷ *Ibid.*, G. Peabody & Co. to Chouteau, Merle & Sanford, March 19, 1852. The interest on \$115,000 of the Toledo, Norwalk & Cleveland bonds was guaranteed by the Cleveland, Columbus & Cincinnati Railroad Co.

²⁸ *BFLB*, Baring Brothers & Co. to Ward, March 12, 19, April 8, Oct. 8, 15, 1852; Sept. 6, 1853; Baring Brothers & Co. to Boalt, July 2, 1852; *BPOC*, Ward to Baring Brothers & Co., April 15, 23, May 14, June 1, 1852; Dec. 9, 13, 1853.

²⁹ *EIPM*, Chouteau, Merle & Sanford to Peabody, July 15, 1851.

From paying for rails by transferring American bonds it was but a step to purchasing securities. To take one small example, in March, 1855, Ward purchased for the Barings \$80,000 (face value) Michigan Central 8 per cent bonds at 89. All were sold in London or in the United States within three months of the original purchase.³⁰

When the Barings felt that the American market offered better opportunities than the English, they bought and held for varying lengths of time a group of American securities, including some of western railroads. Beginning in July, 1852, they authorized Ward, in conference with Swift, to set up an investment account to the amount of £20,000 for the purpose of buying and selling American shares and bonds of all kinds. The amount at Ward's disposal was later increased to £50,000. Among the securities purchased were Michigan Central shares and bonds of the Toledo, Norwalk & Cleveland, Illinois Central, and Joliet & Northern Indiana railroads. Sales in this case were made almost entirely in the United States. The final disposition of the bonds was not effected until 1857.³¹

Other merchant bankers also dealt in railroad bonds on their own account or purchased them for clients. They moved the securities across the ocean depending on the most promising market, but they were in this way instrumental in selling some of the bonds to English and continental European investors and thus offering a wider market for the railroad securities.

While comparatively few securities of American railroads were publicly floated in London, the technique was occasionally employed. Peabody & Company negotiated in London the sale of the largest single block of bonds of a northwestern railroad to be marketed by a single merchant banker in this period.³² In April, 1853, Peabody & Company arranged to raise funds for the Ohio & Mississippi Railroad Company. This company had franchises from Indiana, Ohio, and Illinois to build a line from Cincinnati to a point on the Mississippi River opposite St. Louis. Its early financial history was typical of that of many railroads of the period. At first its capital was provided by several of the cities and counties interested,

³⁰ *BPOC*, Ward to Baring Brothers & Co., March 20, May 15, June 29, 1855; *BPLB*, Baring Brothers & Co. to Ward, April 20, 27, May 25, June 1, 15, 1855.

³¹ *BPLB*, Baring Brothers & Co. to Ward, July 21, Aug. 4, 11, 22, Sept. 13, 1854; April 5, 27, June 22, 29, Aug. 3, 1855; July 18, Nov. 20, Dec. 5, 1856; Jan. 20, 1857; *BPOC*, Ward to Baring Brothers & Co., July 25, Aug. 8, 28, Sept. 8, 13, Oct. 6, 9, 1854; May 9, June 5, 19, July 24, Aug. 6, 10, 14, 21, 1855; June 24, July 2, 1856; Jan. 12, Feb. 10, 27, 1857; Ward, Campbell & Co. to Baring Brothers & Co., Aug. 9, Sept. 1, 1854; Dec. 10, 1855; July 23, 1856. Other securities included in the investment account were New York Central shares and bonds, Reading shares, and Pennsylvania shares.

³² The Illinois Central loan in 1852 was for £1,000,000, but it was arranged through a British syndicate headed by Devaux & Company. See F. W. Gates, *The Illinois Central Railroad and Its Colonization Work* (Cambridge, 1934), pp. 72-73.

and by some individuals. As was also quite common, the cost of the road had been underestimated and by 1853 the work on the eastern branch from the Ohio to the Wabash River could be carried no further until additional funds were secured.³³

Peabody, who had held back from associating his name openly with a railroad issue, now followed the lead of older firms of merchant bankers by helping to finance the Ohio & Mississippi.³⁴ When Professor O. M. Mitchel, the engineer of the road who had resigned his post to go to England to obtain the much-needed funds, arrived in London, he presented Peabody with letters from the bankers of the railroad, Page & Bacon of St. Louis, and Peabody's friends, Duncan, Sherman & Company of New York. Although a few months before Peabody had remarked that nothing with the name of Mississippi, that disgraced state, could meet with favor in England, he now changed his mind and continued to support the railroad for several years. In the original agreement of April 1, 1853, he contracted to buy \$1,844,000 of 7 per cent first-mortgage convertible bonds of the Eastern Division of the Ohio & Mississippi Railroad Company, at par, payable in New York, less 2 per cent commission. He also took an option on 600 bonds of the 7 per cent first mortgage bonds of the Western Division of the line at the same price.³⁵

It might be noted that the name of Mississippi did not appear in the London announcements. The bonds were advertised in *The Times* and in the prospectus as those of the Cincinnati & St. Louis Railway. "The Brief Statement of the Elements of Credit, of the Cincinnati and St. Louis Railway" was enough to attract even those who were cautious about American railroads. It referred to the plan to unite "two great focal cities of the Western States," and went on to say: "The same line extended eastwardly reaches the cities of Baltimore and Philadelphia, and by its extension westwardly we are carried directly to San Francisco on the Pacific. Hence this road is a link, and the most important link in the great trunk line which, at no distant day, must unite the Atlantic and Pacific Oceans."³⁶ As a guarantee of the efficacy of the appeal, however,

³³ Edward Hungerford, *The Story of the Baltimore & Ohio Railroad, 1827-1837* (New York, 1928), Vol. I, p. 301. The first estimate for the railroad and equipment was \$5,000,000; the completed cost was \$20,000,000.

³⁴ See above, p. 155.

³⁵ *EIPM*, Peabody to Watts Sherman, May 28, Nov. 19, 1852; Duncan, Sherman & Co. to G. Peabody & Co., Feb. 18, 1853; Agreement between O. M. Mitchel, Atty. of the City of Cincinnati, State of Ohio, and George Peabody & Co., April 1, 1853; G. Peabody & Co. to Page & Bacon, Aug. 19, 1853.

³⁶ *Ibid.*, Peabody to editor of *The Times*, April 4, 1853; Brief Statement of the Elements of Credit of the Cincinnati and St. Louis Railway; Peabody to Duncan, Sherman & Co., April 1, 8, 1853; C. M. Lampson to Peabody, April 7, 1853.

even before contracting to take the bonds, Peabody & Company had assured the disposal of a good part of them. The subscriptions indicate that while some small takers were among the number, many were men of wealth, even such London bankers as Coutts & Company. Some of the bonds were turned over to William Crawshay in payment for iron ordered through Peabody & Company at the rate of £208.2.6 per \$1,000 bond. Within three days of the announcement all the bonds were sold. Peabody was so encouraged that he entered into a joint account with Page & Bacon for another 850 of the \$1,000 bonds of the Western Division.

The transfer of funds to the United States was also quickly accomplished. In the original contract Peabody had agreed to pay the equivalent of par in New York; in actual practice, part of the funds raised were used to buy rails in England, thus reducing the amount to be remitted. In April, Peabody arranged to have his New York correspondents, Duncan, Sherman & Company, draw on him when exchange was favorable so that by July 1 he would have funds in the United States to pay the \$1,250,000 due there. The New York house easily effected the sale of bills.³⁷

In spite of this and other successful appeals for funds in England, by the early 1850's the market for securities in New York was growing in importance. More American securities were now first floated there instead of in England. Even when the investor was a European, he frequently purchased bonds in the United States rather than in the English market. With the development of rapid communications, orders for bonds were more often sent directly to New York; thus, it was not always the merchant banker in London who facilitated the investment of English funds in American securities. Prices in New York reacted on the British market, and bankers in England advised agents in the United States that when contracting to take bonds they should rely mostly on the American market and only "collaterally" on the European one. The United States still looked to Europe for capital, and large amounts of American bonds reached the British market, but the New York money market was assuming a more independent status.³⁸

Even when merchant bankers were unwilling to associate their names publicly with issues of western railroad securities, they rendered indirect aid in several ways. The large scope of their operations in American securities and in financing American trade made

³⁷ *Ibid.*, C. Peabody & Co. to Duncan, Sherman & Co., April 1, 29, June 10, 1853; G. Peabody & Co. to Page & Bacon, June 11, 13, 1853.

³⁸ *Ibid.*, Duncan, Sherman & Co. to G. Peabody & Co., May 1, 8, Nov. 6, 1852; Jan. 12, 26, 1853; G. Peabody & Co. to Page & Bacon, Dec. 3, 1853; G. Peabody & Co. to Chouteau, Sanford & Co., April 14, 1853.

it inevitable that their other American transactions would indirectly affect western railroads. The merchant bankers rendered indirect financial assistance of great importance by removing from the American market the more established and better known American governmental and corporate securities and disposing of them in Europe. When McCalmont & Company or Rothschild & Sons or Baring Brothers & Company chose to purchase stocks and bonds of eastern railroads – Eastern and Western of Massachusetts, New York Central, and Baltimore & Ohio, for example – or bonds issued by the federal government, the various states, and numerous cities, they were freeing the American market in greater measure than would otherwise have been the case for the shares and bonds of the western railroads.

Another indirect aid was given through extension of credit to the various individuals and firms connected with western railroads. When the Barings granted credit to J. M. Forbes for mercantile operations, or extended the time at which he had to meet obligations, they were indirectly permitting him to invest his available funds in the Michigan Central, the Joliet & Northern Indiana, the Chicago & Aurora, the Central Military Tract, or the Hannibal & St. Joseph Railroad companies.

The gains which the merchant bankers enjoyed for their direct aid to American railroads is not easy to judge. The financial returns accruing to the London houses on these transactions were varied. Net profits would have to be averaged over a period of years and only then after deductions for losses had been made. A case in point is the transaction between the Lawrenceburg & Upper Mississippi Railroad Company and Peabody. Fortunately for his joint account operations, there was a gain made on the sale of the railroad's bonds, for there was a loss on the iron for which the contract was signed between Peabody and the railroad just before manufacturers raised prices in 1852.³⁹ Although the immediate outcome of the transaction between Peabody and the Ohio & Mississippi Railroad Company was pleasing, the account was later to cause a great deal of trouble. The railroad's default of interest payments on the bonds brought letters of protest from trusting investors. Peabody not only advanced his own funds to redeem the coupons of July, 1855, in an attempt to save the reputation of the railroad whose bonds he had marketed, but he made further loans and renewals as a contribution to the final completion of the line in 1857.⁴⁰

³⁹ *Ibid.*, Chouteau, Sanford & Co. to C. M. Lampson, Sept. 25, 1852.

⁴⁰ *Ibid.*, John W. Rhodes to Peabody, Feb. 13, 1856; *MG&Co.PM*, Memorandum, George Peabody, Aug. 13, 1861; Peabody to J. Pierpont Morgan, Aug. 13, 1861.

Cautious as the Barings were, they also sometimes made mistakes in judgment. In April, 1852, they purchased \$50,000 in 7 per cent bonds of Ross County, Ohio, maturing on July 1, 1871, issued in favor of and endorsed by the Marietta & Cincinnati Railroad Company. The price was 95. Not until 1860, eight years later, did the London firm succeed in selling any of the bonds. Even then it could only dispose of them in small lots through a New York house for prices ranging from 78½ to 79½.⁴¹

Other mistakes in estimating the future of a particular railroad could be cited. One that might be charged to the Barings is their refusal to market in 1852 the bonds of the Illinois Central, a venture which turned out to be quite successful. In the early 1850's Baring Brothers & Company had many reasons for refusing to lend assistance. They had little faith in anything connected with Illinois because of the past actions of the state in regard to its obligations and because state authorities continued to refuse to pass legislation providing for a completely sound financial structure. Some of the Barings' close friends, such as W. H. Aspinwall and William Sturgis, either refused or withdrew their support on the same grounds, though another friend, D. A. Neal, was very active in the early history of the road. W. H. Swift, whose judgment on railroad matters was highly regarded by the Barings, always considered east-west trunk lines as safer investments than north-south lines and also felt that lines were sounder when built through settled areas between cities of some size and economic importance; the Illinois Central route passed through unsettled areas under the obligations arising from the land grant and its southern terminus was nothing to excite the imagination of businessmen. Robert Schuyler was president of the line and Ward did not trust him. Besides, the Barings feared that the bonds would not sell in England and, if they did not, the house would be faced with a lock-up of its funds until the road was built, revenues began to come in, and enough land had been sold to assure potential investors that the project was worthy of support. Finally, the stockholders were widely scattered and, with authority vested in a small number of directors, the chances for dishonesty seemed great.⁴²

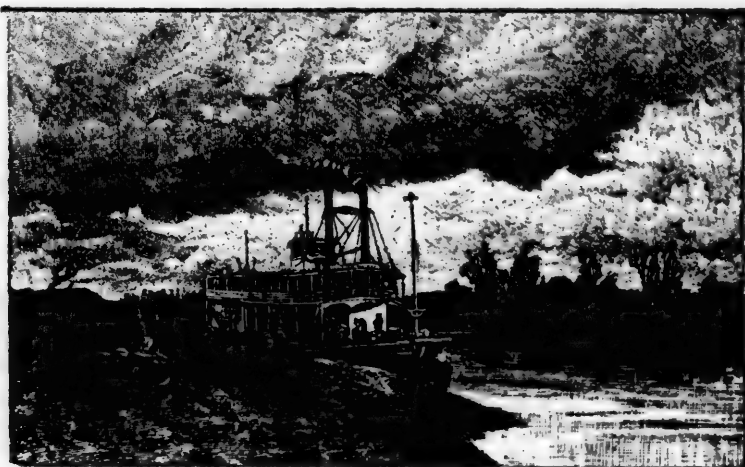
⁴¹ *BPLB*, Baring Brothers & Co. to Ward, April 22, 1852; Sept. 14, 1855; Jan. 29, March 12, 1858; May 27, Oct. 28, 1859; March 16, May 26, June 29, 1860; *BPOC*, Ward, Campbell & Co. to Baring Brothers & Co., Nov. 15, 1859; April 17, May 1, June 12, 30, July 14, 1860.

⁴² *BPOC*, Ward to Baring Brothers & Co., Oct. 15, 1850; Aug. 30, Sept. 2, 9, 12, 1851; Jan. 7, May 14, June 1, Sept. 21, Nov. 19, Dec. 7, 1852; and enclosures; *BPLB*, Baring Brothers & Co. to Ward, Sept. 16, 1851; April 29, May 7, June 25, 1852; Thomas Baring to Ward, Dec. 17, 1852; Baring Brothers & Co. to George Griswold, Dec. 17, 1852; *BPMC*, D. A. Neal to Joshua Bates, Oct. 26, Nov. 5, Dec. 5, 1851; memorandum by

As a matter of fact, on the eve of the Civil War the Barings were not sorry that they had no larger obligations in western railroads. During the Panic of 1857 many of the western transportation corporations defaulted on interest payments and for more than two years experienced great difficulty in meeting their debts when due. Projected western roads were completed with difficulty and few new plans met a favorable reception. Peabody & Company could assign part of the blame for its temporary financial embarrassment of 1857 to relations with railroads of the Old Northwest, and the Barings, though never under severe pressure in this crisis, were willing to extend temporary aid only to roads already assisted. One reason for this policy was that the firm currently had a considerable sum tied up in unsalable bonds of the Hannibal & St. Joseph Railroad Company.

During the 1850's these two Anglo-American merchant bankers had made substantial contributions to the building of the railroads in the Old Northwest. Fired by faith in American credit, by conditions in Europe, by competition for railroad business, by the prospect of profit, and by the urging of friends, Peabody and the Barings bought rails, advanced credit for short periods, and facilitated the extension of long-term credit to western railroads by American and European investors, including themselves. The association of their names with these railroads in itself aided the railroad's credit standing. The merchant bankers' early extension of short-term credit was especially significant. In contrast to the conservatism of some English banking firms, these two houses ventured relatively early into a highly risky railroad field. They effected some gains and suffered some losses. They judged correctly on some occasions and guessed wrong on others. While the equity capital for western railroad building undoubtedly came largely from the United States, a considerable amount of both short-term and long-term credit had been furnished in Europe, partly through the agency of these two representative Anglo-American merchant bankers. Without the injection of their influence the history of the railroads in the Old Northwest, particularly the timing of their construction, would have been noticeably different.

D. A. Neal, April 26, 1852; *Baring Papers Printed Documents*, Prospectus of the Illinois Central Railroad Co. loan, June 10, 1852; newspaper clipping, dated June 17, 1852, signed "Justice."



Behind The Lines

The La Crosse Packet Company during the Civil War

¶ River transport was for a time a critical link in the upper Mississippi Valley transportation system, bridging diminishing gaps in the railroad network and linking those river-axis trade centers through which were pouring the human and commodity tides of war and frontier development. Riverboat operations in such an environment offered limitless challenges to management and provided opportunities for both disaster and great profit.

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The upper Mississippi Valley, especially the west bank, still depended to a large extent during the Civil War upon steamboat transportation. One of the most important steamboat lines on the upper Mississippi River in the war years was the La Crosse and Minnesota Steam Packet Company. Although the La Crosse Line operated for less than five seasons, it made a significant contribution to the development of the upper valley and to supplying the Union. While handling increasingly heavy traffic, the company faced a

host of difficult problems, such as extensive competition, inflation, slow communications, low water, and strikes. As the management surmounted these and other obstacles, the La Crosse Line succeeded in making a considerable amount of money.¹

Though the company did not begin operations until the war, the origins of the La Crosse Line can be traced back to the spring of 1857. At that time the La Crosse and Milwaukee Rail Road, the main predecessor of the Chicago, Milwaukee, St. Paul and Pacific Railroad, was building its line across Wisconsin toward the Mississippi River. The president of the railroad, the chief engineer of its western division, and a group of La Crosse, Wisconsin, businessmen arranged for the incorporation of the packet company. The state of Wisconsin granted the steamboat company authority to maintain a line of transportation from La Crosse to St. Paul, Minnesota, and to any other points on the Mississippi, and authorized a capital stock of \$150,000.² Then the new directors elected officers and instructed the president to confer with railroad companies in order to secure stock subscriptions and business for the packet company.³

Before the new company could begin operations, however, the Panic of 1857 brought about conditions which made it necessary to postpone further activities for several years.⁴ The La Crosse and Milwaukee Rail Road, when it neared the Mississippi in 1858, therefore made arrangements to connect with the Galena, Dubuque, Dunleith and Minnesota Packet Company.⁵ Founded in 1847, this organization had expanded rapidly, especially after railroads began to reach the Mississippi in 1854.⁶ By 1858 the Galena Line connected with several railroads between Rock Island, Illinois, and St. Paul, most of them competitors of the La Crosse Rail Road.⁷

Therefore the La Crosse Rail Road and La Crosse businessmen continued to try to establish a steamboat line to St. Paul that would be independent of the Galena Line. In the fall of 1859 the rail-

¹ Among the many who have written about the La Crosse Packet Company are Frederick Merk, *Economic History of Wisconsin during the Civil War Decade* (Madison, 1916); Lester B. Shippee, "Steamboating on the Upper Mississippi," *Mississippi Valley Historical Review*, Vol. VI (March, 1920); Mildred L. Hartsough, *From Canoe to Steel Barge on the Upper Mississippi* (Minneapolis, 1934); H. J. Hirschheimer, "La Crosse River History and the Davidsons," *Wisconsin Magazine of History*, Vol. XXVIII (March, 1945); and Louis C. Hunter, *Steamboats on the Western Rivers* (Cambridge, 1949).

² *Private and Local Laws . . . of Wisconsin . . . 1857* (Madison, 1857), pp. 776-779; *History of La Crosse County, Wisconsin* (Chicago, 1881), pp. 478-482, 496-498, 585; August Derleth, *The Milwaukee Road* (New York, 1948), pp. 51, 288.

³ *St. Paul Financial, Real Estate and Railroad Advertiser*, April 2, 1857.

⁴ *History of La Crosse County*, p. 483.

⁵ *Pioneer and Democrat* (St. Paul), Aug. 7, 1858.

⁶ Minnesota Commissioner of Statistics, *Minnesota: Its Place Among the States* (Hartford, 1860), p. 107; *Minnesota Pioneer* (St. Paul), Apr. 13, 1854.

⁷ Carlton J. Corlis, *Main Line of Mid-America: The Story of the Illinois Central* (New York, 1950), p. 77; *Minnesota Pioneer*, May 15, 1855; *Pioneer and Democrat*, Apr. 24, 1856, Mar. 14, 1858.

road arranged for two independent boats and two others of the small Davidson Line of St. Paul to connect with the trains at La Crosse; but before the opening of navigation in the following spring the railroad renewed its traffic agreement with the Galena Line.⁸ La Crosse Rail Road officials again switched their business to the Davidson Line in the summer of 1860, leading to a drastic rate war between the Davidson Line and La Crosse Rail Road on the one hand and the Galena Line and its main connections, the Illinois Central and the Milwaukee and Prairie du Chien Railroads, on the other. Because of a court order, the La Crosse Rail Road once again returned its business to the Galena Line at the beginning of navigation in 1861.⁹

Meanwhile the La Crosse Rail Road and the Davidson Line had revived the dormant La Crosse and Minnesota Steam Packet Company. Three railroad and two steamboat officials bought the company's charter and elected themselves as its directors. Early in 1861 two more Davidson Line officers replaced two of the railroad men on the board of directors, which then elected William F. Davidson, the head of the Davidson Line, as president.¹⁰ Since the new packet company had not yet acquired steamers of its own when navigation opened in 1861, Davidson again placed two of his boats in the La Crosse and St. Paul trade. The Galena Line therefore started another rate war.¹¹

After Davidson counterattacked by adding his two Minnesota River boats to his La Crosse and St. Paul line, the Galena Line ended the rate war.¹² The La Crosse Rail Road and the Davidson and Galena Lines had worked out a method of joint ownership of the La Crosse Packet Company. Its directors authorized the issuance of \$80,000 of capital stock for the purchase of four barges and six steamboats, four of the latter from the Davidson Line and two from the Galena Line. Then the La Crosse Line issued \$40,000 of stock to the Galena Line, \$30,000 to Davidson and his younger brother, and \$10,000 to the La Crosse Rail Road's agent at La Crosse and

⁸ *Mankato Weekly Record*, Nov. 22, 1859; *Pioneer and Democrat*, Sept. 15, 25, Nov. 8, 18, 1859; Robert C. Toole, "Steamboat Pioneer: The Early Career of William F. Davidson," *Minnesota History*, Vol. XXXVI (Sept., 1959), pp. 250-258.

⁹ Russell Blakely, "History of the . . . Advent of Commerce in Minnesota," *Minnesota Historical Collections*, Vol. VIII (St. Paul, 1898), pp. 408-409; *Pioneer and Democrat*, July 28, Aug. 16, 25, 31, Sept. 4, 5, 25, 27, 29, Oct. 2, 13, 1860, Jan. 30, 1861.

¹⁰ *Journal*, p. 8; *Minute Book*, pp. 9-12. Davidson Papers, Minnesota Historical Society; Blakely, *Minnesota Historical Collections*, Vol. VIII, p. 408; *History of Milwaukee, Wisconsin* (Chicago, 1881), p. 1,342.

¹¹ *Mankato Semi-Weekly Record*, May 21, 1861; *Pioneer and Democrat*, Apr. 2, 26, May 22, 28, 1861.

¹² *St. Paul Press*, May 21, 1861; *Pioneer and Democrat*, Aug. 2, 3, 1861; S. W. McMaster, *60 Years on the Upper Mississippi* (Rock Island, 1893), p. 186.

his business partner.¹³ Two Davidson men soon resigned from the board of directors to make room for two Galena officials.¹⁴ This "consolidation," the press noted, would "do away with the competition that has prevailed for two years on this route."¹⁵

To keep pace with the growth of the upper Mississippi Valley and the demand for transportation, the La Crosse Line gradually added more steamboats to the six acquired in the summer of 1861. Near the end of that season President Davidson bought a seventh boat and put it to work for the company, which later repaid him for the steamer's cost and his expenses. Davidson purchased another steamer for the company in the summer of 1862, and added a ninth before the end of that season of navigation. In the following year the president had two boats constructed for the company at his boat yard at La Crosse. Before the opening of navigation in 1864, the company abandoned one of its original boats and sold one it had purchased two years earlier, reducing the total number back to nine for the coming season. Davidson rebuilt and enlarged one of the original steamers for the company for that year, however. The packet company doubled its fleet just as the war ended by buying nine boats from Davidson, who, after selling his four steamers to the company in 1861, had gradually bought or built vessels of his own to operate on the Chippewa, St. Croix, Minnesota and Mississippi above the Falls of St. Anthony, at Minneapolis, in connection with the steamers of the La Crosse Line. He also rebuilt and lengthened another of the company's first boats before the opening of the season of 1865.¹⁶

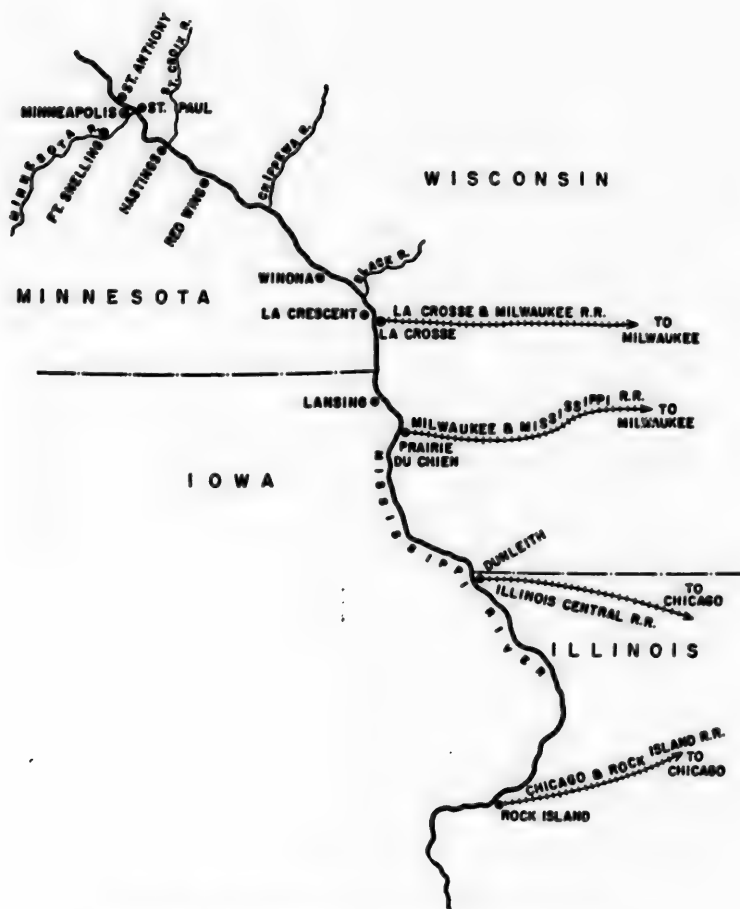
The La Crosse Line thus owned a total of 11 steamboats during the war, most of them small and having a very light draft. About half of the boats were sidewheelers and half sternwheelers. The steamers varied in capacity from 75 to 398 tons, but all except two were rated at less than 200 tons, and six at less than 130 tons. The four steamers for which data are available ranged from 147 to 226 feet in length and from 27.5 to 29 feet in beam, or width, while their

¹³ The steamboats were the *Eolian*, *Favorite*, *Frank Steele*, *Keokuk*, *Northern Belle* and *Wenona*. Stock Certificates Nos. 1-7; Minute Book, p. 18. Davidson Papers.

¹⁴ Minute Book, p. 19. Davidson Papers.

¹⁵ *Pioneer and Democrat*, Aug. 13, 1861.

¹⁶ The boats added were the *G. H. Wilson* (1861); *Moses McLellan*, *Pomeroy* (1862); *Hudson*, *Mankato* (1863); *Albany*; *Ariel*; *Chippewa Falls*; *Clara Hine*; *Enterprise*; *G. H. Gray*; *H. S. Allen*; *Mollie Mohler*; and *Stella Whipple* (1865). The *Wenona* and *Frank Steele* were rebuilt and renamed the *Annie Johnston* and the *Addie Johnston*, respectively; Journal, pp. 6, 7, 11, 12, 21, 27, 29, 39, 41; Minute Book, pp. 23, 33, 34; Account Book, n. p.; Ledger, p. 44; Bills of sale, A. R. Morrell to William F. Davidson, Oct. 5, 1862, and George Houghton et al. to Davidson, April (n.d.), 1865. Davidson Papers; *Pioneer and Democrat*, Feb. 14, May 3, 1862; *St. Paul Pioneer*, Oct. 15, 1863, June 25, 1864; *Saturday Evening Post* (Burlington, Iowa), Jan. 24, 1914, Jan. 16, 1915, April 27, 1918; William M. Lytle, *Merchant Steam Vessels of the United States, 1807-1867* (Mystic, Conn., 1952), pp. 2, 10, 64, 68, 155, 200.



AREA SERVED BY THE LA CROSSE PACKET COMPANY
EARLY 1860's

holds were about 5 feet deep. One vessel rated at 106 tons drew only 15 inches of water, probably when "light," or unloaded. These narrow, light-draft boats were well suited for the upper Mississippi, even during fairly low water, and for its small, winding tributaries. All of the steamers except the two built in 1863 were "used" boats constructed before the war, two of them as early as 1855. All except the two built at La Crosse and one at Hokah, Minnesota, were constructed in the Ohio Valley, four at Cincinnati, Ohio, and three at Brownsville, Pennsylvania, near Pittsburgh. With one exception, all were still operating after the war. The age of the 11 boats when dismantled, abandoned, or lost averaged over 14½ years, much older than steamers in earlier decades or on other parts of the western waters.¹⁷

As almost all of the steamboats were small and second hand when bought by the La Crosse Line, the cost of most of them was relatively low. They ranged in price when acquired from \$1,800 for a five-year-old sternwheeler of 127 tons to \$25,000 for a five-year-old sidewheeler of 229 tons; but ten cost only \$15,000 or less, and six \$10,000 or less.¹⁸ On the other hand, the price of steamboats in general increased considerably during the war. As early as the spring of 1863 a Pittsburgh newspaper noted this, explaining that it was not only because of the scarcity of good boats, but also on account of the increased price of labor of every kind.¹⁹ When "outside" appraisers evaluated seven of the La Crosse Line's war-time boats in 1866, after several years of inflation, these steamboat men valued two of the vessels at the same prices they had cost when purchased, and three at considerably higher prices than they had cost the company originally.²⁰

Though the boats were inexpensive and small, rivermen considered several of them to be unusually fast. One of the small steamers made a trip from St. Paul up the narrow Minnesota River to Carver, about 38 miles, in three hours' running time and five hours' total time, including four business stops and taking on wood. The press reported that this was the fastest time on record between those points. Some claimed that one of the company's larger steamboats was then the fastest on the upper Mississippi. Although another of the company's larger steamers defeated a boat belonging to a different packet line

¹⁷ Frederick Way, *Way's Directory of Western River Packets* (n. p., 1950), pp. 107, 111, 185, 215, 226; Lytle, *Merchant Steam Vessels*, pp. 2-200; *Pioneer and Democrat*, Nov. 25, 1860; *St. Paul Pioneer*, Dec. 13, 1866; *Post* (Burlington), various issues from Oct. 4, 1913, to Nov. 8, 1919; Hunter, *Steamboats on the Western Rivers*, p. 363.

¹⁸ Account Book, n. p. Davidson Papers.

¹⁹ Quoted in the *St. Paul Pioneer*, Mar. 13, 1863.

²⁰ Minute Book, p. 41. Davidson Papers.

in a race from La Crosse to St. Paul shortly after the war, racing was unusual in the La Crosse Line.²¹ Instead, it scheduled its steamers to follow regular time tables listing the time of arrival at each town. For example, in 1862 the company scheduled boats to leave St. Paul at seven in the morning and arrive at La Crosse at seven that evening after eleven intermediate stops. Returning, they left La Crosse at ten at night and arrived at St. Paul at four on the next afternoon, if all went well. Since the company listed the river distance between those towns as 205 miles, the officers expected the steamers to average 17.1 miles per hour downstream, including stops, and 11.4 miles per hour against the current.²²

Besides owning steamboats of its own, the La Crosse Line chartered additional ones at times and rented some of its own steamers to others on occasion. The company, although owning only 11 boats in 1863 and 9 in 1864, years of unusually low water in the upper Mississippi, used a total of 18 in the former year and 24 in the latter.²³ On the other hand, the La Crosse Line rented some of its own larger vessels to another packet company during part of 1864.²⁴ In addition, the Union government took over several of the steamers for various periods during the war. One of the boats when it arrived at St. Louis in April, 1862, was "pressed into the United States service," for about two weeks. The government took over three of the vessels a year later, scheduling one of them to operate over a month in the Vicksburg area. Finally, three of the steamers "enlisted" in the fall of 1863, and went "down to the sunny south, for government work and fat pay." One left for New Orleans and spent the entire winter in "Uncle Sam's service," receiving net earnings of \$1,443, not particularly "fat."²⁵

In addition to adding to its number of steamboats, the La Crosse Line also increased its stock of barges considerably. Beginning with only 4, by the end of 1863 the company owned 13. Just as the war ended, the organization bought 15 more from President Davidson, including one steamboat hull, two wharfboats and four "flats." The 13 owned in 1863 ranged in cost from \$250 to \$6,000, but 10 were priced at only \$1,000 or less, and 4 at less than \$500.²⁶ Some of the

²¹ *Pioneer and Democrat*, May 27, June 3, 1862; *St. Paul Pioneer*, Sept. 19, 1865.

²² Memo Book, 1862, n. p. Davidson Papers. The Corps of Engineers listed this distance in 1959 as 141.2 miles, but this did not include the great number of crossings which steamboats made to stay in the channel going down-river and out of the channel going up-river.

²³ *St. Paul Pioneer*, Nov. 29, 1863, Dec. 31, 1864.

²⁴ *Journal*, p. 36. Davidson Papers.

²⁵ *Pioneer and Democrat*, April 17, 30, 1862; *St. Paul Pioneer*, April 4, May 5, 8, Nov. 12, 25, 1863, March 18, 1864; *Journal*, p. 41. Davidson Papers.

²⁶ Account Book, n. p.; Minute Book, pp. 33-34. Davidson Papers.

larger barges had a grain capacity of 12,000 bushels, while one could carry 25,000.²⁷

The first wharfboat in Minnesota caused considerable opposition in St. Paul. When the city council in 1862 authorized President Davidson to keep a wharfboat, or floating warehouse, at the levee, a rival captain circulated a petition asking the council to reconsider. He claimed that the "Davidson Line," as the La Crosse Packet Company often was called, would have the opportunity of making a monopoly of the carrying trade by preventing goods from passing through the hands of the commission merchants. The press pointed out that the license fee of \$20 exacted by the council seemed "ridiculously low," since the wharfboat would serve the purpose of a warehouse for which the rent would be from \$800 to \$1,000 per year. When the council met to consider the petition, the warehousemen were present "in full force" to oppose the wharfboat; but the council declined to change its action. The La Crosse Line soon advertised that it had completed a "mammoth" wharfboat which would hold 700 tons of freight, and to and from which goods of all kinds could be carried to any part of St. Paul without further handling or danger of breaking.²⁸

The large increase in equipment during the war years enabled the La Crosse Line to operate in many other "trades" besides that from La Crosse to St. Paul. In order to take advantage of seasonal changes in business on the upper Mississippi, the company occasionally scheduled lines from La Crosse to St. Anthony, to Red Wing, to Winona and to La Crescent, all in Minnesota, as well as to Lansing, Iowa. Other boats ran at times from St. Paul to Fort Snelling or to Hastings, Minnesota.²⁹ As business required and the stage of water permitted, the company also operated on the Minnesota and St. Croix Rivers. Each year from 1861 to 1863 it put three steamers on the Minnesota. None of the La Crosse Line's own boats plied this river during the low water year of 1864, but in the following season 13 of the 19 steamers on the Minnesota belonged to the company. The La Crosse boats also served the settlers in the St. Croix Valley for a while in 1861 and frequently two years later.³⁰

The expanding La Crosse Line met considerable competition from other steamboat companies and from a large number of

²⁷ *St. Paul Pioneer*, Nov. 29, 1863.

²⁸ *Pioneer and Democrat*, March 27, 28, May 3, 1862.

²⁹ *Goodhue County Republican* (Minn.), Oct. 10, 1862; *Pioneer and Democrat*, Apr. 26, 1861, May 9, Aug. 19, 1862; *St. Paul Pioneer*, Jan. 7, May 14, June 16, 1863, May 24, 1864.

³⁰ Thomas Hughes, "History of Steamboating on the Minnesota River," *Minnesota Historical Collections*, Vol. X (St. Paul, 1905), p. 159; *Pioneer and Democrat*, Aug. 2, 1861; *St. Paul Press*, May 3, 1863.

independent boats on the upper Mississippi and its tributaries, but did not encounter any bitter rivalry. The Northern Line Packet Company, of St. Louis, formerly one of the leading steamboat lines, ran into a series of difficulties beginning in 1861 which eliminated it as a major power on the upper river for the duration of the war.³¹ Furthermore, the La Crosse Line worked closely with the Galena Packet Company and with its successor, the North Western Packet Company. Since the Galena Line owned a large part of the stock of the La Crosse Line and had two officers on the latter's board of directors, close cooperation was not at all difficult. When the Galena Line sold all of its boats, barges, and other property at the end of 1863, reportedly to the Illinois Central and the Milwaukee and Prairie du Chien Railroads as joint purchasers, the new owners organized the North Western Line.³² They also bought up a considerable portion of the capital stock of the old Galena Line, giving them a sizable number of shares in the La Crosse Line.³³

Early in 1864 the La Crosse Line and the new North Western Packet Company entered into a "contract of gross earnings." They agreed that the La Crosse Line would furnish and operate boats and barges between La Crosse and St. Paul and all intermediate points, while the North Western Line would do the same between Dunleith, Illinois, and St. Paul and all intermediate points, except between La Crosse and St. Paul. Neither company would run or use any boats or barges between these points except for the "mutual benefit" of the two firms. They also agreed to divide all of their "gross earnings" equally and made careful provisions for this to be done. The original contract was just for the navigable season of 1864, but early in 1865 the two companies renewed the agreement for another year.³⁴ It is not surprising that they did not announce these contracts to the press.

The annual statistics of steamboat arrivals at the terminal port of St. Paul give an indication of the La Crosse Line's share of the total transportation business on the upper Mississippi. The company owned 9 of the 37 boats which arrived at St. Paul in 1862, while its steamers made 306, or 31 per cent, of the 1,015 trips to that city. During the low water years which followed, the company's

³¹ *Weekly Pioneer and Democrat* (St. Paul), June 16, 1859; *Pioneer and Democrat*, Jan. 31, 1860, March 2, May 2, June 1, 1861, Jan. 17, April 4, 1862; *St. Paul Pioneer*, Nov. 12, 1863, Jan. 21, 1866.

³² *St. Paul Pioneer*, Nov. 10, 12, 25, 1863.

³³ John Lawler to William F. Davidson, April 20, 1865; Account Book, n. p.; Stock Certificates Nos. 25, 29-33. Davidson Papers.

³⁴ Contracts, Feb. 4, 1864, Feb. 17, 1865. Davidson Papers.

own boats arrived at St. Paul only 106 times out of a total of 743 trips in 1863, and 73 times out of 630 in 1864; but the very light-draft boats chartered by the La Crosse Line added greatly to its share of the traffic. For instance, in 1864 these small steamers made 170 trips to St. Paul, making a total for the company of 243, or 39 per cent of all arrivals.³⁵

Since there was no violent competition on the upper Mississippi from the summer of 1861 until after the Civil War, the steamboat and railroad companies increased freight and passenger rates considerably during this period of general inflation. The cost of shipping a bushel of wheat, the region's most important product, from St. Paul or Winona to Milwaukee or Chicago was only 9 cents in 1860, including 4 cents by river to La Crosse. The transportation companies raised the total charge to 12 or 15 cents in the next two years and to 25 cents in 1863.³⁶ Early in the following year the general superintendent of the Milwaukee and St. Paul Railway, formerly the La Crosse and Milwaukee, wrote President Davidson that he believed it would be necessary for them to raise their rate at least 14 or 15 cents more.³⁷ Representatives of the railroads and steamboat lines in the upper Mississippi Valley met at a convention in Chicago in June and raised the rates considerably. Instead of charging the same rate from all river points, as before, however, the transportation lines now announced that the difficulties caused by low water made it necessary to "discriminate" in favor of towns nearest the railroads. They therefore increased wheat to 36 cents from St. Paul to Lake Michigan, but only to 28 cents from Winona, on the west bank of the Mississippi between St. Paul and La Crosse.³⁸ Three months later the La Crosse Line also abolished all freight classifications, the only exceptions thereafter to a single rate based on weight being a few items on a special tariff schedule.³⁹

Not only did the La Crosse Line connect with the Milwaukee and St. Paul Railway, but it made connections with almost every stage line, local steamboat, and railroad in Minnesota and western Wisconsin. By the spring of 1862 the packet company had arranged to connect with the different lines of stages north of La Crosse. The Minnesota Stage Company dominated this business at the time, operating many different lines to towns in central and northern Minnesota, Wisconsin, Manitoba, and Dakota Territory. The boats

³⁵ *St. Paul Press*, Nov. 18, 1862; *St. Paul Pioneer*, Nov. 29, 1863, Nov. 13, 1864.

³⁶ Henrietta M. Larson, *The Wheat Market and the Minnesota Farmer* (New York, 1925), p. 46; *St. Paul Press*, Dec. 12, 17, 1865.

³⁷ Edwin H. Goodrich to William F. Davidson, Jan. 16, 1864. Davidson Papers.

³⁸ *St. Paul Press*, June 29, 1864.

³⁹ William F. Davidson, *Diary*, 1864, n. p. Davidson Papers.

also met the stages of a line running from Hastings southwest through southern Minnesota. At the same time, the La Crosse Line announced that it had arranged to connect with all the boats on the Chippewa, St. Croix, Minnesota, and upper Mississippi above the Falls of St. Anthony. As the war ended, the company again advertised that it would make "close connections" with the daily packets on the major tributaries.⁴⁰

When railroads began operations in Minnesota, the packet company also scheduled boats to meet the trains. The first to operate in the state, in 1862, was the St. Paul and Pacific Railroad, now the Great Northern Railway. This road ran from St. Paul northwest to St. Anthony, later part of Minneapolis, and gradually extended its tracks on up the east bank of the Mississippi, reaching a point 50 miles northwest of St. Paul in 1865. One of the La Crosse steamers left St. Paul daily upon the arrival of the St. Paul and Pacific's morning train. Later at Winona other boats met the trains of the Winona and St. Peter Railroad, now part of the Chicago and North Western Railway. This road began operations in 1863, running west into southern Minnesota, one of the richest grain-producing areas of the state. In the following year the Winona and St. Peter reached Rochester, 50 miles from the river, and in 1865 moved another 16 miles westward.

As the war ended, another steamer began making daily trips from St. Paul up the Mississippi to Mendota, on the west bank of the river, to connect with the Minnesota Central Railway, and later in 1865 to meet the Minnesota Valley Railroad at the same point. The Minnesota Central, now part of the Milwaukee Road, ran from Minneapolis south through Mendota to Faribault, in southern Minnesota, a distance of 56 miles, while the Minnesota Valley, later part of the North Western system, extended from Mendota southwest along the Minnesota River for 22 miles.

Since none of Minnesota's railroads had rail connections outside the state until well after the war, the La Crosse Line acted as a "middleman" between them and the rest of the nation. This arrangement benefited both the packet company and the railroads greatly, but the ultimate victory of the steam locomotives over the steamboats already was foreshadowed. Steamboatmen discontinued service on the Mississippi above the Falls of St. Anthony in 1864, as the St. Paul and Pacific extended its rails up the valley.⁴¹

⁴⁰ *Pioneer and Democrat*, Jan. 1, May 3, 1862; *St. Paul Pioneer*, June 30, 1865.

⁴¹ Railroad Commissioner of Minnesota, *Report for the Year Ending August 31, 1873* (St. Paul, 1874), p. 86, and *Report for the Year Ending June 30, 1877* (Minneapolis, 1878), p. 21; *St. Paul Pioneer*, Dec. 27, 1863, March 15, 1864, June 30, 1865, April 19, 1866; *St. Paul Press*, Aug. 31, 1865.

In order to increase its profits by giving more efficient service, the La Crosse Line not only made many different connections, but also sought solutions to various important operating problems. By 1864 it simplified its operations considerably by using telegrams for sending reports and orders. The company established a private telegraph office on the St. Paul levee to aid in managing the movements of the fleet of steamers and barges.⁴² Captains wired President Davidson from the towns along the upper Mississippi to report boat and barge movements or accidents and to request extra barges or deck hands.⁴³

To maintain efficiency, safety, and passenger comfort, the company each winter had its boats thoroughly repaired. For the season of 1861 Davidson had two of the boats "overhauled and refitted, furnished and painted" at La Crosse, while another was "repaired . . . , repainted and refurnished throughout" at Madison, Indiana. The boats underwent "a general renovation and repair" at La Crosse again during the following winter. In preparation for the season of 1863, President Davidson employed 80 men at his boatyard at La Crosse to paint, caulk, and repair his own and the company's steamers, as well as to add 32 feet to the length of the company's original boats forward of the sidewheels.⁴⁴ Repairs were a major item of expenditure by the company. For instance, in 1863 the directors appropriated \$43,600 for repairs, including \$35,100 for boats, \$5,000 for barges and \$3,500 for ways, the total amount being more than half as large as the net profits in the previous year.⁴⁵

Maintenance must have been excellent, for the La Crosse Line's boats had surprisingly few major accidents. Only two really serious mishaps occurred, both in 1864. In the first instance the steam drum-head of one boat blew out during a government inspection and the steam severely scalded eight men, two of whom died. The government inspector was generally blamed for the way he made the trial, the press reported, but later added that the company's officers disagreed with this conclusion.⁴⁶ Late in the season occurred what one journalist regarded as "the most heart-rending casualty which has ever shocked the people" of St. Paul. The boiler of a steamer chartered by the company exploded, killing seven crew members and seriously injuring about a dozen more. All was "a complete

⁴² *St. Paul Pioneer*, Nov. 30, 1865.

⁴³ Telegrams, H. W. Holmes to William F. Davidson, Sept. 21, Oct. 1, 27, 1864; R. Johnson to Davidson, Sept. 22, 1864. Davidson Papers.

⁴⁴ *Pioneer and Democrat*, March 23, 27, 1861, Jan. 14, 1862; *St. Paul Pioneer*, March 6, 1863.

⁴⁵ Minute Book, p. 26. Davidson Papers.

⁴⁶ *St. Paul Pioneer*, June 2-5, 1864.

and instantaneous wreck," so that nothing remained of the boat but "a heap of rubbish."⁴⁷

A much more frequent problem than accidents was low water. The packet company had to adjust its operations almost every summer to make the best of low water in the Mississippi. For example, a small boat replaced a larger one in the La Crosse and St. Paul trade for this reason in 1862. A year later, when none of the packets on this route were able to run above Red Wing, Minnesota, the company operated several very light-draft steamers from St. Paul down to connect with them at that point.⁴⁸ A St. Paul newspaper observed that "Cattle wade across the river above and below the city every day."⁴⁹ Although the water was still extremely low in October, small boats chartered by the La Crosse Line were able to bring up over a thousand tons of freight in a week.⁵⁰ Nevertheless, the company had to charge almost \$8,000 to "low water loss" during the season.⁵¹ The water fell very low again in 1864, when the packets were unable to reach St. Paul as early as the latter part of May. The company again chartered light-draft boats to meet its own farther down the river. The press noted in August that even these little vessels "rub the bottom for miles," but nevertheless were doing a good business. A month later, however, the business was not reimbursing the company for the extra expense.⁵²

Besides rearranging the schedules and chartering small boats during the low water of 1864, the "indomitable Captain Davidson" undertook to do his own river improvement. He sent one of his own steamers and a crew of 15 to operate against one of the most troublesome bars between La Crosse and St. Paul, planning to build wing dams of logs from both shores to throw the current over the narrowest part of the bar and then dredge a channel through it. If this experiment succeeded, Davidson intended to adopt similar methods against some of the other bars. His men soon constructed wing dams at three different bars and reported that the dams had accomplished nearly all that was expected of them. Built by driving a line of stakes out into the river and piling enough willow and brush against them to turn the current, the dams raised the water in the channel "a few inches," making it "much easier" for the boats to get over the bars.⁵³ Davidson and his men no doubt agreed with

⁴⁷ *Ibid.*, Nov. 5, 6, 1864.

⁴⁸ *Pioneer and Democrat*, July 16, 1862; *St. Paul Pioneer*, June 20, 1863.

⁴⁹ *St. Paul Press*, June 20, 1863.

⁵⁰ *St. Paul Pioneer*, Oct. 6, 1863.

⁵¹ *Journal*, p. 29. Davidson Papers.

⁵² *St. Paul Pioneer*, May 22, July 10, Aug. 9, Sept. 3, 1864.

⁵³ *Ibid.*, Aug. 24, 28, 1864.

the "poet" whose "Owed 2 Thee River" appeared in the local press:⁵⁴

O, rivver! on hoos bussum
Flotes the botes so fool of biz;
1 half the ear yure awl dried up,
The tuther haf yure friz.

The company also improved operating efficiency by scheduling some of its boats to handle only freight and others to carry mainly passengers. In 1861 the La Crosse Line assigned a steamer to operate between La Crosse and Winona as a freight boat "exclusively."⁵⁵ The company established separate freight and passenger "lines" between La Crosse and St. Paul in the following spring. The daily freight line numbered three boats, while the two-boat "Lightning Line" carried nothing but passengers, mail and express, making close connections with the trains at La Crosse. This enabled passengers from St. Paul to reach Milwaukee in 20 hours or Chicago in 24, "twelve hours the quickest time between these three cities ever made!"⁵⁶ At the end of the war the company again advertised a daily passenger line, as well as separate freight and tow boats and barges.⁵⁷

Even though the La Crosse Line employed a total of about a thousand men by 1864, labor was not a serious difficulty except for a few demands for wage increases. When the pilots on the upper Mississippi struck for a raise from \$75 to \$150 per month in 1861, the "Davidson Line" immediately consented to their demand. The company was considerably more reluctant when the deck hands struck for an increase from \$25 to \$30 a month during the following season. The press called upon the mayor and police of St. Paul to protect the men who were willing to go to work from the "threatened violence" of the strikers, while the president of the Galena Packet Company left for St. Louis to get enough "contraband labor" to man all the boats plying between Dunleith and St. Paul, including those of the La Crosse Line. After the strike had continued for a week, however, the packet companies granted the \$5.00 increase.⁵⁸ When some of the "roustabouts" of the Galena Line's successor, the North Western Packet Company, struck for another raise in 1864, President Davidson received a "blacklist" and made a memoran-

⁵⁴ *Ibid.*, Nov. 30, 1865.

⁵⁵ *Pioneer and Democrat*, March 3, 1861.

⁵⁶ *Ibid.*, May 3, 1862.

⁵⁷ *St. Paul Pioneer*, June 30, 1865.

⁵⁸ *Pioneer and Democrat*, Nov. 2, 1861, June 8, 10, 11, 14, 1862; *St. Paul Press*, Dec. 31, 1864.

dum not to employ Shea, Duffy, Kelly, and the others "under any circumstances."⁵⁰

Not all changes in wages were increases, however. The pay on passenger boats ranged in August, 1864, from \$200 per month for captains and pilots to \$20 to \$25 for chambermaids. First clerks received \$170, first engineers \$150 and first mates \$125. The company paid second mates, watchmen, carpenters, first stewards and first cooks \$75 to \$80; second stewards and cooks \$60; and pantrymen and porters \$35. A sharp wage reduction in September, however, perhaps because of low water, reduced pilots, first clerks and first engineers of passenger boats to \$125 per month and made less drastic cuts in most other positions. Also, the wages of most employees on freight and tow boats were considerably lower than on passenger boats. For example, in September of this same year captains, pilots and first clerks of these boats received only \$100 per month. All officers and men apparently also received quarters and rations, however, the latter consisting largely of bread, pork, hominy, beans, rice, potatoes and mixed vegetables.⁶⁰

Another important group of "workers" for the La Crosse Line consisted of the freight and passenger agents. Actually, they were businessmen in the various river towns to whom the company paid commissions on the traffic that they handled. President Davidson recommended in 1863 a new policy of issuing stock to the agents in a few of the most important shipping centers in Minnesota. Under the current system of paying them by tonnage shipped, he could not get agents at the more important points to work for the price that had been agreed upon by a recent convention of railroad and steamboat officials in Chicago. Davidson suggested one or two \$2,000 shares each for these agents, since he believed that by allowing them a direct interest in the company's profits, their "undivided services and cooperation" might be secured at a much smaller expense than by paying them "commissions and drawbacks."⁶¹ Therefore the company sold one share to the agent at Red Wing and two each to the agents at Winona and Hastings.⁶² The La Crosse Line did not expand this policy, however.

The constant attention to operating problems helped the company to handle the ever-increasing traffic. Passengers were a major source of income, and one of the most important types of passenger traffic was Army personnel. As the new Minnesota regiments com-

⁵⁰ Memo Book, 1864, n. p. Davidson Papers.

⁶⁰ William F. Davidson, *Diary*, 1864, n. p.; *Account Book*, n. p. Davidson Papers.

⁶¹ Minute Book, p. 29. Davidson Papers.

⁶² Stock Certificates Nos. 12-14. Davidson Papers.

pleted their training at Fort Snelling in the early part of the war, the La Crosse boats helped take them down the river unit by unit, plus "a lot of stragglers." The company also transported troops up the Minnesota River for the Sioux War of 1862, a serious outbreak on the Minnesota frontier, and provided transportation in that and the following year for Major General John Pope and his staff on their trips to the state. During 1865 the boats brought back up the Mississippi from La Crosse large numbers of veterans, homeward bound.⁶³

In the spring of 1863 the La Crosse boats also transported many Indians for the government. Hundreds of prisoners from the Sioux War were taken from the Minnesota Valley to Iowa, soon followed down the Minnesota by the Winnebagos, bound temporarily for Fort Snelling, near St. Paul. The government herded the Indians on to the steamers like sheep, with 300 to 450 on vessels which normally carried 70 to 80 passengers.⁶⁴

Civilian passenger traffic naturally received relatively little notice in the press during the war, but this business was nevertheless important. For example, during 1864 the agents of the La Crosse Line sold 9,400 tickets, consisting of 2,200 from La Crosse to up-river towns and 7,200 down-river to La Crosse. The latter figure included 6,200 first class, or cabin, tickets and 1,000 second class, or deck, fares. Since the steamboat agents also sold local tickets between intermediate points, and railroad agents sold through tickets for the boats, especially up-river, the total number of passengers was much greater than 9,400. Furthermore, the La Crosse Line scheduled excursion trips for special events, such as Fourth of July barbecues, parades at Fort Snelling and end-of-the-season benefits for the St. Paul Protestant Orphans' Asylum.⁶⁵ In 1861 the company also took an excursion party to the Lower Sioux Agency on the Minnesota River to attend the payment of annuities to "several thousand Indians" and to see "wild, frontier life, and the sports of the red men."⁶⁶ In the following year the sports of the red men became much too wild for excursions.

Foreign immigration to the North Star State also continued during the war, though apparently on a rather small scale. Shortly

⁶³ *Pioneer and Democrat*, June 2, Nov. 15, 1861, Aug. 22, Nov. 23, 1862; *St. Paul Pioneer*, May 27, Oct. 8, Nov. 1, 1863, June 20, 27, July 6, Sept. 12, 1865. The Sioux War of 1862 was discussed in detail by William W. Foltwell in *A History of Minnesota* (St. Paul, 1924), Vol. II, pp. 109-264.

⁶⁴ William J. Petersen, *Steamboating on the Upper Mississippi* (Iowa City, 1937), p. 138; *St. Paul Pioneer*, April 24, 29, May 13, 19, 21, 1863.

⁶⁵ Account Book, n. p. Davidson Papers; *Pioneer and Democrat*, June 9, July 12, 1861, Aug. 31, 1862; *St. Paul Pioneer*, Dec. 1, 1865.

⁶⁶ *Pioneer and Democrat*, June 12, 1861.

before the La Crosse Line bought Davidson's boats in 1861, one of them took a "deck full" of Norwegians up the Minnesota River. One of the company's steamers in the following year brought up from La Crosse 50 passengers who were "direct from Holland," also bound for the Minnesota Valley. Two years later a boat chartered by the La Crosse Line arrived at St. Paul with 50 Germans headed for the Mississippi Valley above the Falls of St. Anthony.⁶⁷ Another La Crosse boat shortly after the war carried about 30 Lapps "dressed nearly all in furs and skins" to Red Wing, plus approximately 50 Swedes "fresh from their native land, and arrayed in its peculiar costume," to St. Paul.⁶⁸

Even more important to the La Crosse Line than passengers was the income from freight. A considerable proportion of the freight in the war years consisted of Army material. Especially from 1862 to 1864 the boats transported many cargoes of arms, ammunition, commissary stores, horses, wagons, and other Army equipment and supplies. The steamers carried Army freight in both directions on the Mississippi and Minnesota Rivers on account of the location of Fort Snelling and other posts and because of the Sioux War of 1862. In that year boats departed for New Ulm, in the Minnesota Valley, with arms and stores for the Sioux campaign. Three of the company's boats in the following year engaged in hauling Army supplies to the Yellow Medicine Agency and other points on the Minnesota Valley frontier. Meanwhile another steamer was carrying ammunition up to Fort Snelling, as still another steamer was towing barges of Army horses and wagons down to St. Louis. On the other hand, in the spring of 1864 the La Crosse boats brought up load after load of Army horses to Fort Snelling, with approximately 200 in each shipment.⁶⁹

Among the many different kinds of freight transported by the packet company, probably the most important was grain, especially wheat. Week after week, year after year, the boats and barges carried thousands of bushels of wheat from Winona, Hastings, St. Paul, St. Anthony, Mankato and other points on the Mississippi and Minnesota to La Crosse for rail shipment to Milwaukee or Chicago. One boat and barges came down the Minnesota in the spring of 1862 with about 11,000 bushels in bulk, reported at the time to be the largest cargo of freight ever brought from that river in a single

⁶⁷ *Ibid.*, June 30, 1861, June 8, 1862; *St. Paul Pioneer*, Aug. 28, 1864.

⁶⁸ *Ibid.*, July 28, 1865.

⁶⁹ *Pioneer and Democrat*, Aug. 22, 1862; *St. Paul Pioneer*, April 11, May 21, Nov. 14, 1863, April 22, 23, 29, May 13, 1864.

shipment.⁷⁰ The company transported 2,364,000 bushels of wheat to La Crosse in the single season of 1864, with almost a third of the total being shipped from Winona alone. Other important grains "exported" from Minnesota and western Wisconsin included oats, corn, barley, rye, and buckwheat. The La Crosse Line was aided by the fact that Minnesota's wheat production increased from 5.1 million bushels in 1860 to 9.5 million in 1865, while the oats crop grew from 2.9 million bushels in the former year to 4.4 million in 1866. Corn production, however, decreased from 3.1 million bushels in 1860 to 2.1 million in 1866.

Flour, too, was becoming a significant "export" by the 1860's. A total of over 25,000 barrels was shipped down-river during 1861 from St. Paul alone.⁷¹ On a trip in that year one La Crosse boat took 443 barrels down the river, shipped principally from St. Paul to Milwaukee. Another steamer in the following season carried down 1,000 barrels, mainly from St. Anthony. A St. Paul forwarding house shipped 500 barrels of flour and 70 barrels of lard on a La Crosse boat in 1863, destined for Liverpool, England, and believed to be the first direct shipment of breadstuffs ever made from the Minnesota city to Europe.⁷² The La Crosse Line brought a total of 28,000 barrels of flour to La Crosse during 1864, much of it from St. Paul.⁷³

In addition to grain and flour, the La Crosse Line brought down the rivers a great variety of other commodities. From the Minnesota River the boats transported seed, potatoes, beans, cattle, bacon, pork, hams, lard, butter, and eggs. The steamers also carried furs, rags, household goods, lumber, and lumber products such as slats, pails, beer kegs, wagons, and "a lot of other plunder too numerous to mention."⁷⁴ Much of this was bound for St. Paul or other upper Mississippi River towns, however, and not for the East. The La Crosse boats took only 850 tons of general merchandise to La Crosse in 1864, for example, almost all of it from the single city of St. Paul.⁷⁵

The "imports" brought up river by the company were even more varied than the exports. Among the many commodities which the boats transported from La Crosse to St. Paul and other towns were foodstuffs such as groceries, corn, cheese, beef, oysters, salt, and related products such as liquor. In addition, the steamboats carried

⁷⁰ *Pioneer and Democrat*, June 22, Dec. 3, 1861; May 7, 10, 13, 18, 1862; *St. Paul Pioneer*, April 22, 1863; *St. Paul Press*, June 6, 1862.

⁷¹ Account Book, n. p. Davidson Papers; Minnesota Assistant Secretary of State, *Statistics of Minnesota . . . For 1869* (St. Paul, 1870), pp. 12, 22, 26; *St. Paul Press*, Jan. 1, 1862.

⁷² *Pioneer and Democrat*, Dec. 3, 1861, May 7, 1862; *St. Paul Press*, May 24, 1863.

⁷³ Account Book, n. p. Davidson Papers.

⁷⁴ *St. Paul Press*, June 7, 1861; *St. Paul Pioneer*, May 2, 5, 14, 1863, April 27, 1866.

⁷⁵ Account Book, n. p. Davidson Papers.

livestock, agricultural tools, building materials, and other items, including horses, sheep, wagons, axes, anvils, castings, hardware, bags, leather, paper, oil, roofing fixtures, and stucco. Among the household goods brought up were tinware, woodenware, crockery, clocks, furniture, and carpets. Boots, shoes, dry goods, and "fancy goods" far from completed the list. Still other shipments consisted of merchandise for the Hudson's Bay Company. One steamer and its barges arrived at St. Paul in 1864 with 327 tons of freight, to that date the largest load ever carried up from La Crosse.⁷⁶ The La Crosse boats hauled almost 21,000 tons of general merchandise upriver from La Crosse during 1864 alone, nearly half of it going to St. Paul.⁷⁷ Furthermore, boats of the company occasionally arrived from below La Crosse with large quantities of still other commodities such as iron, nails, and glass from the Ohio Valley, coal from Rock Island or apples from St. Louis.⁷⁸

Another type of "import" transported by the La Crosse boats consisted of equipment for Minnesota's new railroads. The first one to begin track laying was the St. Paul and Pacific in 1861.⁷⁹ The La Crosse Line also carried supplies and equipment for the Winona and St. Peter by 1863, followed a year later by shipments for the Minnesota Central and in 1865 by cargoes for the Minnesota Valley Railroad. During these years the La Crosse steamers hauled large and numerous shipments of rails, spikes, locomotives, tenders, freight and passenger cars, and passenger car chairs. The cargoes grew larger and larger each year, until by 1863 the boats were towing barges to handle the heavy loads. One steamer and two barges arrived at St. Paul in the following year with a locomotive, tender, platform cars, half a mile of rail, and a machine shop boiler all in one trip.⁸⁰

With both traffic and rates increasing steadily, the company's "gross earnings" grew rapidly. These included the "earnings" from boats, mail contracts, and miscellaneous sources such as interest and exchange. The earnings of each boat consisted of the income remaining after the original cost of the boat and its individual operating expenses such as wages, rations, fuel and wharfage fees were deducted from the steamer's total receipts. Thus some steamboats had negative earnings during their first season of operation, since

⁷⁶ *St. Paul Press*, Aug. 17, 1861; *Pioneer and Democrat*, Dec. 3, 1861, May 25, 1862; *St. Paul Pioneer*, May 7, June 2, 1863, April 23, May 13, 1864.

⁷⁷ Account Book, n. p. Davidson Papers.

⁷⁸ *Pioneer and Democrat*, April 16, June 17, 1862; *St. Paul Pioneer*, Nov. 7, 1865.

⁷⁹ Railroad Commissioner of Minnesota, *Report for the Year Ending June 30, 1877*, p. 21; *Pioneer and Democrat*, Sept. 10, 1861.

⁸⁰ *St. Paul Pioneer*, May 31, 1863, June 19, July 8, Aug. 9, 1864, June 16, 23, Aug. 31, 1865.

their receipts were less than their cost and expenses. The highest earnings by a single boat during the war were \$49,000 in 1864, but the average was \$27,000 for that year. The company's gross earnings from 1861 through 1865 are listed in Table I. Income from mail contracts made up only a relatively small and decreasing proportion of the total. The unusually large miscellaneous income in 1863 included \$10,000 from the sale of stock to agents.

The packet company's general expenses also increased greatly, however. They included all expenses not charged against an individual boat, as indicated in Table II. Agents' commissions were the largest general expense in 1861 and 1862, but general repairs cost the most during the next two years. Expense accounts also were already important a century ago. A large, unusual expense in 1864 was \$17,500 for chartering light-draft "low water boats." The biggest item in the following year was \$40,600 for "drawbacks" to several major grain shippers, including \$13,000 to President Davidson.

TABLE I
GROSS EARNINGS
(In thousands of dollars)

Account	1861 *	1862	1863	1864	1865	Total
Steamboats	\$30.4	\$78.8	\$111.7	\$242.9	\$292.3	\$756.1
Mail	3.5	8.3	8.6	11.0	9.9	41.3
Miscellaneous	—	—	10.1	1.6	1.5	13.2
Total	\$33.9	\$87.1	\$130.4	\$255.5	\$303.7	\$810.6

* Aug.-Dec., 1861.

SOURCE: Journal, pp. 8, 21, 28, 41, 115. Davidson Papers.

TABLE II
GENERAL EXPENSES
(In thousands of dollars)

Account	1861 *	1862	1863	1864	1865	Total
General Repairs	—	\$ 6.2	\$28.3	\$ 55.9	\$ 30.9	\$121.3
Expense Accounts	\$2.9	4.0	19.2	17.7	17.4	61.2
Agents' Commissions	3.7	9.4	15.5	17.8	1.8	48.2
Barges	—	1.4	12.0	0.5	28.7	42.6
Miscellaneous	0.1	3.6	9.4	39.5	64.9	117.5
Total	\$6.7	\$24.6	\$84.4	\$131.4	\$143.7	\$390.8

* Aug.-Dec., 1861.

SOURCES: Journal, pp. 8, 21, 29, 41, 113-116; Ledger, pp. 20, 525. Davidson Papers.

In spite of the large increase in general expenses, the La Crosse Line's net profits rose dramatically. The net profits, dividends, and retained earnings are shown in Table III, as well as the capital stock outstanding and the book value of the steamboats and barges at the beginning of each year. Based upon the investment in boats and

TABLE III
PROFITS, DIVIDENDS, CAPITAL STOCK, AND EQUIPMENT
(In thousands of dollars)

Account	1861 ^a	1862	1863	1864	1865	Total
Net Profits	\$27.2	\$62.5	\$46.0	\$124.1	\$160.0	\$419.8
Dividends	—	—	32.0	46.0	92.0	170.0
Retained Earnings	\$27.2	\$62.5	\$14.0	\$78.1	\$68.0	\$249.8
Capital Stock	\$80.0	\$80.0	\$80.0	\$92.0	\$92.0	—
Boats & Barges ^b	80.0	83.0	98.0	124.1	124.0	—

^a Aug.-Dec., 1861.

^b No depreciation allowance.

SOURCES: Journal; Ledger; Account book. Davidson Papers.

barges, the net profits ranged from 33 per cent in 1861 to 100 per cent in 1864; but, the company also operated many chartered steamers during the latter year. From a mid-twentieth century viewpoint the percentage of net profits on the company's assets appears rather spectacular. However, even in terms of a century ago, the average net profits of less than \$65,000 per season during the four war years do not seem wildly excessive for a company which during this period owned as many as 11 steamboats and 13 barges and employed up to a thousand men.

Furthermore, the company paid out much less than half of its net profits in dividends. The directors did not authorize any dividends at all until early in 1863, when they approved one of 40 per cent on the capital stock of \$80,000. By the end of the year the La Crosse Line had increased its stock to \$92,000 by selling five \$2,000 shares to agents and by issuing one share to the general superintendent of the La Crosse and Milwaukee Rail Road in payment for two barges. The packet company declared a 50 per cent dividend on the capital stock of \$92,000 at the beginning of 1864, followed a year later by a 100 per cent dividend on the same amount of stock. Thus the corporation paid total dividends of \$170,000 for the war period on an investment in boats and barges which did not exceed

\$124,100 at the beginning of any year. A considerable proportion of the dividends were actually "implicit wages," however, since the general officers usually did not receive any salaries. The only salaries paid during the war apparently were \$1,000 to President Davidson and \$417 to the general agent for about five months' services in 1862.⁸¹ Davidson used part of his large share of the dividends to invest in other steamboat enterprises and in several other businesses, including real estate, the Minnesota Valley Railroad, the *St. Paul Pioneer*, grain elevators, and the First National Bank of St. Paul.⁸²

The La Crosse Line not only prospered, but, until the fall of 1865, the company, its officers and its boats generally received favorable publicity from the press, even before Davidson invested in the *Pioneer*. The newspapers frequently contained such observations as "Capt. Hatcher has won the regards of all by his courtesy and attention to the wants of the passengers"; or "The officers are good fellows, civil and obliging"; and comments upon "the well known reputation of these gentlemen, as steamboatmen and businessmen of the first character."⁸³ President Davidson especially received friendly notices, being described as "A man of untiring energy and ambition" who "knows not the word fail." One St. Paul journal maintained in 1863 that "Thousands of farmers north and west of this point can and do thank Capt. Davidson for the marketing facilities they enjoy."⁸⁴ Two years later this paper had faith that "as long as there is water enough in the Mississippi to float a duck he will run some kind of craft to accommodate the public."⁸⁵ Davidson was still popular enough as late as October, 1865, to receive the compliment that "his good taste and eye for the beautiful in steamboats improves every year."⁸⁶

Nevertheless, the increasing freight rates led as early as February, 1864, to an "antimonopoly" movement against the "Upper Mississippi Transportation Monopoly" in general and the La Crosse Line and President Davidson in particular. This movement, which formed part of a general agitation extending over Minnesota, Wisconsin, Iowa, and Illinois, the region which a decade later was the seat of the Granger uprising, culminated early in 1866 in an antimonopoly

⁸¹ Minute Book, pp. 23, 26, 31, 33; Stock Certificate No. 11. Davidson Papers.

⁸² Real Estate Book, pp. 30-38; Contract, W. F. Davidson *et al.* and Minnesota Valley Railroad Co., Dec. 5, 1865; H. Thompson to Davidson, Dec. 30, 1865. Davidson Papers; J. Fletcher Williams, *A History of the City of Saint Paul Minnesota Historical Collections*, Vol. IV (St. Paul, 1876), p. 414; Shippee, *Mississippi Valley Historical Review*, Vol. VI (March, 1920), p. 475.

⁸³ *Pioneer and Democrat*, June 25, 1861; *St. Paul Pioneer*, June 5, 1863; Jan. 24, 1865.

⁸⁴ *Ibid.*, June 3, 1863.

⁸⁵ *Ibid.*, March 22, 1865.

⁸⁶ *Ibid.*, Oct. 25, 1865.

convention at St. Paul, attended by delegates from many sections of Minnesota and western Wisconsin. Seemingly, the movement accomplished some of its main objectives, such as lower rates, the establishment of new, independent steamboat lines and a new "open river" policy whereby the railroads would exchange freight with all boats on equal terms. Less than three months after the antimonopoly convention, however, the Milwaukee and Prairie du Chien and the Milwaukee and St. Paul Railroads completed arrangements for consolidating, or prorating, their earnings, soon followed by a merger of the two companies. At the same time, the La Crosse and the North Western Packet Companies merged to form the North Western Union Packet Company, which dominated the upper Mississippi River for the next seven years.⁸⁷ The *St. Paul Press* remarked in disgust that "The Upper Mississippi and all the routes of transit to Lake Michigan have thus passed completely under the control of a Transportation Monopoly far more gigantic in its proportions and immensely more powerful" than ever before.⁸⁸

The La Crosse Line thus operated for only 4½ years, but its services had a long-range significance. The company made an important contribution to the growth of population, agriculture, trade, and railroads in the upper Mississippi Valley and to supplying the Union with troops, food, and steamboats during the Civil War. Also, the La Crosse Line marked the end of boom times for steamboating on the upper river. The packet company's successor, the North Western Union Line, faced increasingly severe competition from the expanding railroads after they established through rail connections between St. Paul and Chicago in the late 1860's, after which the steamboat business on the upper Mississippi began a permanent decline.⁸⁹

The stockholders of the La Crosse Line, however, made a considerable amount of money. President Davidson rose from a minor operator of a few small steamers to the position of "commodore" of the upper river, and invested a sizable share of his accumulated capital in a variety of other Minnesota enterprises. Without a virtual monopoly and power to set rates almost as it chose, the company's profits would certainly have been less. Yet without large profits it seems doubtful that many enterprising businessmen would have entered a business which began to decline after only a decade and

⁸⁷ *St. Paul Press*, Feb. 20, 1864, Jan. 14, 1866; *St. Paul Pioneer*, Aug. 20, 1865, Feb. 7, 8, April 24, 1866; Derleth, *Milwaukee Road*, p. 90; Merk, *Economic History of Wisconsin*, p. 308.

⁸⁸ *St. Paul Press*, May 4, 1866.

⁸⁹ North Western Union Packet Co. Journal. Davidson Papers; Railroad Commissioner of Minnesota, *Report for the Year Ending June 30, 1877*, p. 21.

a half of real prosperity in this region. Provided with competent and resourceful leadership from William F. Davidson and others, the La Crosse and Minnesota Steam Packet Company made the most of its unusual opportunities.





British Attitudes Toward Investment in North American Railroads

British investors, whose support was of importance to American railroad development, fluctuated between enthusiasm and dismay. Low investment per mile, the performance of certain blue chip carriers, and the native growth potential all stimulated the vital flow of foreign capital. Rate wars, overcapitalization, stock price fluctuations, imprudent reorganizations, and low business morality had an inhibiting effect. In most cases American investments offered little opportunity to exert control. By the late 1890's, British investors had largely outgrown their enchantment with the American railroad bonanza.

by A. W. Currie

PROFESSOR OF POLITICAL ECONOMY
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Investors act from complex and sometimes contradictory motives. The economic historian, who has the advantage of hindsight, must avoid crediting them with a degree of perspicacity which they did not possess or with statistical data which they did not have at the time they made their decision. Moreover, there were thousands of actual and potential investors in Britain and several hundred railways in North America. Consequently, any

brief analysis of British attitudes toward North American rails is likely to oversimplify the actual situation. Besides, the documents containing specific advice to investors are scattered and it is hard to say how well individual investors were informed either about these articles or about economic conditions on this side of the Atlantic in general. Yet despite these drawbacks, there are obvious advantages in trying to analyze motives and attitudes on the basis of the literature which was available to investors when they were making up their minds.*

Promoters of American railroads approached British investment bankers in the 1830's and 1840's and were successful in selling some bonds. On the other hand, Thomas Baring was reluctant to sponsor large American issues in 1850.¹ He felt that the United States was expanding too rapidly for its own good and he found it difficult to discriminate properly among the deluge of railroad securities being offered by British and other companies. It may be added that some investors would remember the collapse of the American canal boom in 1837 and the repudiation of their debts by eight American states. At all events, they were deterred by the railway mania at home, and by the revolutions in Europe in 1848.

By 1852 or 1853 these difficulties were overcome. European political stability was rapidly achieved. American trade revived, especially after the discovery of gold in California. Some American railways were paying good returns. In 1833 an English railway magazine reported that since their opening 18 years earlier, the Boston and Lowell, the Boston and Worcester, and the Nashua and Lowell had paid dividends totaling 131, 112, and 126 per cent, or from 6 to nearly 8 per cent annually.² Good returns on some American railways would tend to encourage British capitalists to invest in other lines in North America. Moreover, the colonies in British North America were willing to give financial assistance to railways, and some American states were prepared to make grants of land.

Under these circumstances, it proved relatively easy to interest British bankers in American rails. To be sure, chicanery seems occasionally to have been practiced. Baring and Glyn did not know they were to be directors of the Grand Trunk until they saw their names on the prospectus. Later on, when things turned out badly, they tried to slough off responsibility for statements contained in it.

* This article was originally presented as a paper at the American Historical Association Meeting in Chicago, Dec., 1959.

¹ Ralph W. Hidy, *The House of Baring in American Trade and Finance* (Cambridge, 1949), p. 411.

² *Herapath's Railway and Commercial Journal*, April 9, 1853.

The fact was that the prospectus could not stand up under the most elementary analysis.³ It was the magic of the names of Baring and Glyn that tended to allay suspicion of the soundness of the enterprise. One investor writing under the pseudonym *Ex Uno Disce Omnes* (free translation: everybody learn from one man's experience) was startled by the prospect of building a railway 1,100 miles long in a country with a population which approximated that of London. "Among the various foreign projects for which England is expected to find the money the Grand Trunk Railway of Canada is the most gigantic and the most popular. It has made its appearance under such auspices that it is almost an act of presumption to criticize."⁴

Notwithstanding the full support of prominent investment bankers, the amount of money raised by American railroads in Britain in the early 1850's was not large relative to the sums secured later on. But compared with the size of the networks being constructed or already in operation it was of the greatest significance. By the end of the decade, sales of securities ceased to be important. The decline in sales was caused by war, fear that cost of construction would greatly exceed estimates, depression, and doubt among investors regarding the future of the Grand Trunk. These doubts, though they related to a single railway, reflected unfavorably on the soundness of other carriers in North America.

The Russo-Turkish War which began in 1853 and the Crimean War which started a year later slowed down the sale of securities. One effect of the Crimean War was to exclude Russia from the western European grain market and raise the price of North American wheat. Furthermore, the inflow of capital into North America brought about higher wages, a rise in the price of lumber, and speculation in land. The editor of a British railway magazine foresaw a repetition in North America of what had so often happened in Britain — "that monstrous abuse, the excess of capital cost over that estimated. . . . If the abomination of greatly exceeding estimates is not corrected, no prudent capitalist will put his money in railway speculation."⁵ An insufficiency of capital meant renewed demands on investors or, alternatively, an incomplete or poorly built line which either failed to reach important traffic centers or had high operating costs.

As things turned out, the fear that inflation would make it impossible to finish the lines in North America proved unfounded.

³ A. W. Currie, *The Grand Trunk Railway of Canada* (Toronto, 1957), pp. 20-22; O. D. Skelton, *The Railway Builders* (Toronto, 1916), pp. 78-79.

⁴ *Herapath's*, May 14, 1852.

⁵ *Ibid.*, Feb. 5, 1853 (editorial).

Instead, it was the business depression of 1857 that mainly caused British sources of capital to dry up. The existence of wildcat banks which had speculated in land and the lavish use of credit in building new railways were important factors in causing or worsening the crisis of 1857.

Meanwhile, British investors were having second thoughts about the soundness of the Grand Trunk. It was being built by a construction-finance company. Although the contractors could use the prestige of Baring and Glyn to help sell securities to the public, they were themselves primarily responsible for both building and financing the road. If the stock market had continued buoyant throughout the period of construction, the company would have made fortunes for its owners. Besides, the promoters might have tried to maximize their profits by skimping the quality of their work and by issuing excessive amounts of securities. In fact, the stock market became sluggish in 1853 or 1854, and collapsed in 1857. Therefore, the construction-finance company behind the Grand Trunk took care to spend no more cash on the actual construction than they could get from the sale of stock at a discount. Then they turned a jerry-built road over to the railway company which had to re-build and re-equip the line. This involved high operating expenses, a succession of appeals to investors, rising costs of capital, and depressed stock prices. Costs of construction had, of course, to be kept low, otherwise expansion of the railway network in North America would have been slowed down. But this is a different matter from the use of construction-finance companies which British investors had learned to regard with distrust.⁶

On the Grand Trunk, disgruntled investors chiefly blamed the colonial government for the deplorable conditions and the lamentable earning power of their road. They alleged that the presence on the board of directors of several Canadian cabinet ministers, the implied approval of the line by the Governor-General, the failure of Canadians to purchase the shares originally allotted to them, and the refusal of the Canadian government to underwrite losses were the basic causes of the railway's troubles. Nevertheless, Baring and Glyn, bankers for the Canadian government as well as the railway, did not escape criticism. They pointed out, however, that

⁶T. C. Cochran, *Railroad Leaders, 1845-1890* (Cambridge, 1953), pp. 111-115; Currie, *Grand Trunk*, pp. 65-69; L. H. Jenks, *The Migration of British Capital to 1875* (New York, 1927), pp. 134-138; R. H. Patterson, *Railway Finance* (Edinburgh, 1867), pp. 27-30; Harold Pollins, "Railway Contractors and the Finance of Railway Development in Britain," *Journal of Transport History* (May, 1957), pp. 41-51; *ibid.* (Nov., 1957), pp. 103-110; Unsigned, "Railway Morals and Railway Policy," *Edinburgh Review* (Oct., 1854), pp. 420-461.

they remained substantial holders of the common stock of the company. They also emphasized that, when the Grand Trunk was in desperate straits and no one else was willing to supply funds, they had risked some of their personal fortunes to keep it going. Though not publicizing the fact, they frankly admitted that their so-called temporary advance was secured ahead of even the first mortgage bonds. The prestige of Baring and Glyn was not irreparably or perhaps even seriously damaged by the Grand Trunk fiasco but it did not shine with as much luster as before.⁷ In the face of war, of fear that the amount of capital being raised in Britain would be inadequate to complete the lines which were under construction in North America, of the depression of 1857, and of failure of the Grand Trunk, British investors no longer rushed to buy North American rails even though the issues had been sponsored by high-sounding names.

By 1858 trade began to revive in North America but before any substantial amount of new railroad bonds could be sold, the American Civil War broke out. The conflict discouraged investment in North America by British though not by German capitalists. After the war, Americans provided an increasing proportion of their own railway capital. Nevertheless, a great deal of money was still attracted from Britain, Germany, Holland, and other countries. The amount of capital inflow was powerfully affected by conditions of prosperity and depression, both in Europe and America. The relationship is complicated and so for reasons of space, year-to-year variations in investment are referred to only incidentally in the course of this article.⁸

In the early 1850's British investment bankers were the key figures in raising capital for North American railroads and to some extent this situation continued after the Civil War. For example, the Rothschild name facilitated the sale of stocks and bonds of the Canadian Pacific in the 1880's and of the bonds of the Grand Trunk Pacific after 1903. Less well-known bankers lent what standing they could to the bonds of smaller Canadian and American lines.⁹

⁷ "Dissatisfied Holder" of Grand Trunk shares wrote in *Herapath's*, Oct. 24, 1854, that investors "have been induced by the use of influential names to subscribe. Now they treat us in a very aristocratic fashion."

⁸ For brief summaries, see A. D. Noyes, "Railways and the Stock Exchange," *London Times*, American Railway Number, June 28, 1912, p. 28; W. Z. Ripley, *Railroads: Finance and Organization* (New York, 1915), pp. 1-10.

⁹ The Temiscouata Railway of Quebec is typical of many promotions by relatively unknown bankers in London. In the 1880's it sold 5 per cent bonds with a par value of about \$2,750,000 and issued \$1,000,000 in stock. The provincial government guaranteed the bond interest to 1898 on part of the issue and to 1900 on the remainder. Between these dates and 1930 bondholders received a total of 18½ per cent in interest or, if interest on capitalized arrears of interest is taken into account, about 1 per cent per annum. No interest was paid after 1930 and no dividends were ever declared on the stock. In 1950

The role of British investment bankers was less important in the sale of stock than of bonds. In 1888 (Sir) Thomas Skinner, founder and editor of the *Stock Exchange Year Book*, stated that "very rarely have our great issuing houses taken part in placing American shares in London."¹⁰ "Very often, however, a house in the United States took over the securities and arranged for the sale of part of them by English firms either on commission or for a share in the profits. Furthermore, with more improved communication between Europe and the United States, more foreign investors were sending their orders directly to the New York market. . . . Large blocks of American bonds and stocks, even of those issues floated in the United States, reached the British market."¹¹ This method of sale did not necessarily eliminate British bankers as important factors in the disposal of American railway securities in Britain. Yet, after reading the sales literature which has survived, one is left with the strong impression that after the Civil War, certainly after 1880, most British investors bought American rails because of their intrinsic worth, in the hope of a speculative profit, or at the suggestion of brokers, and not primarily because the issues may have borne the imprimatur of a British investment banker.

As time went on, railway securities attained an excellent reputation among British investors. This was a matter of slow growth and, of course, some roads became "blue chip" investments much sooner than others. Even as late as 1863 it was stated that "in general, the shareholders are only temporary partners: they probably buy shares in order to sell them at an advance. What they mainly look to is the rise of the shares on the market, and therefore any process of management which can promote this important object meets their approval."¹² In 1869 American railroads were described as precarious for British investors. They would remain in that condition until financial manipulators on Wall Street became more honest or were put under some restraint.¹³

In 1876, however, the *Economist* went "so far as to imply that our [British] railways were almost fit to be put in the first rank of

the line was purchased by Canadian National Railways for its scrap value so that, after more than 60 years, bondholders got back roughly one third of their investment.

¹⁰ Thos. Skinner, "British Investments in American Railway Securities," *Journal of the Institute of Bankers* (Feb., 1888), p. 78.

¹¹ Muriel Hidy, "The Capital Markets," in H. F. Williamson, ed., *The Growth of the American Economy* (New York, 1951), p. 266.

¹² Wm. Chambers, *About Railways* (London, 1865), p. 19.

¹³ Wm. Bartlett and Henry Chapman, *A Handy-Book for Investors* (London, 1869), p. 238. Reference was made to C. F. Adams, "A Chapter of Erie," *North American Review* (July, 1869).

safe securities."¹⁴ In the same year, investors were warned that "American railways should not be taken as a matter of course. Their bonds are not sound merely because they have first claim on assets. The investor should see if the stock represents *bona fide* subscriptions or whether the line is built wholly with bonds. The bonds of older lines in Massachusetts and Pennsylvania are sound but for new companies the investor should ask whether they are to take all the risk attaching to ordinary shares, without the chance of the highest profits."¹⁵ In 1880 it was stated that "a retrospect of ten years to the holder of Home Railway Securities cannot, as a rule, fail to be one of considerable congratulation."¹⁶ Over the period 1870-1879 Home Railway debentures had yielded 4.3 per cent per annum in interest plus 1 per cent annual capital gain on the average. English railway ordinary stock gave an over-all average annual gain of 9 per cent, Scottish rails 11.8 per cent and Irish 10.3 per cent. These returns compared with 3.8 per cent on British government issues, 7.8 per cent on the stock of marine insurance companies, and 11.8 per cent on London bank stock. The same study showed that "United States railroads a little more than a year ago would have been found a poor holding by an investor of ten years' standing but in 1879 a sudden rise occurred. Some have more than doubled in price."¹⁷ American railway stocks were excluded from this study on the ground, so it was asserted, that they had been known in English markets for but a few years.

This last statement was not entirely correct. Some North American railway stocks had been listed on the London Exchange in the early 1850's. Shares of the Pennsylvania, New York Central, Michigan Central, New York and Erie, Grand Trunk, Great Western of Canada and a few others had been quoted from time to time and even regularly. Yet it was true that the list remained a short one. By July 1, 1887, according to (Sir) Thomas Skinner who spoke to the Institute of Bankers, the London Stock Exchange listed 185 issues of 82 American railway companies. (Sir) Joseph Price, formerly an executive of the Great Western of Canada, pointed out that only 20 stocks were listed. No dividends were being paid on 15 of

¹⁴ Quoted by A City Editor, *The Rationale of Market Fluctuations* (London, 1876), p. 115.

¹⁵ Wm. Bartlett, *The Investors' Directory to Marketable Stocks and Shares* (London, 1876), p. 47. See also unsigned, "Romance and Reality of American Railroads," *Quarterly Review* (July, 1884), pp. 79-102.

¹⁶ R. L. Nash, *A Short Inquiry into the Profitable Nature of Our Investments* (London, 1880) p. 34. This book is a reprint of articles in the *London Economist* (March 27, Sept. 20, 1879).

¹⁷ Nash, *Inquiry*, p. 46.

these and, as a result of reorganizations, assessments had been made on 6.

Price and Skinner differed on the profitability of British investments in American rails. The former said that British investors had not been at all fortunate, especially in shares. Bonds were generally profitable but shareholders were at the mercy of Wall Street operators. Price stated that it was "rather a remarkable thing that, while there are 302 dividend-paying railways in America, you can count absolutely upon the fingers of one hand the number of dividend-paying stocks which are actively dealt in on the London Stock Exchange: there are only five. Of course, there are some . . . stocks which are not actively dealt in."¹⁸ Price went on to regret that British investors had not had a chance to invest in some of the best lines in North America such as the Burlington, Chicago and Alton, Rock Island, and Lackawanna. Ordinary shares of the Canadian Pacific had, it was true, been placed in London. They had been sold in the early 1880's at 85, had been worked up to par, and then by 1888 were selling at 32. Wabash preference, another issue held mainly in Britain, had fallen in a few years from 95 to 29.

On the other hand, Skinner declared that British investors had done well in American rails. Many dollar bonds were as good as sterling ones. Some American bonds were poorer than Home rails and distant holders sometimes did not get adequate protection. As regards shares, "many casualties give the idea that American railway securities are in their nature highly speculative. This they certainly are not, or at all events they are not more speculative than other equally considerable and remunerative fields of investment."¹⁹ Ten years previously, in 1878, Baltimore and Ohio 5's were quoted at 88%. In 1888 they were 111. Chicago and Alton bonds, which had been issued at 91 and at 96%, had risen to 123, New York Central had climbed from 95% to 136, Union Pacific from 78% to 103, and so on through a long list. Obviously, a great deal depended on the skill or good fortune with which securities were chosen. A speaker who followed Skinner and Price said that his own experience with American rails was about half good and half bad. He thought this was the result of his own extreme want of knowledge of the quality of the American securities which his broker had recommended.

Despite these differences of opinion regarding the profitability of American rails, British investments in this class of securities,

¹⁸ (Sir) Joseph Price in Skinner, "British Investments," p. 99.

¹⁹ Skinner, "British Investments," p. 76.

particularly in railway bonds, grew rapidly both in value and prestige. The popularity of American rails among British investors accounts, among other things, for a decline in their average yield. In 1892 it was said that Home rails were still yielding 4 or 5 per cent but the return on American railway bonds had fallen from 7 or 8 per cent in 1872 to 4 or 5 per cent, 20 years later.²⁰

Unfortunately the high standing of American rails in the British market was hurt by the disasters which fell upon so many American carriers in 1893. By 1896, certainly by 1900, American rails had recovered their earning power, J. P. Morgan dominated railway finance, and a chapter in the history of British investment in American railways had ended.

During the period between the end of the Civil War and "Morgani-zation" in 1896 or thereabouts, British investors were concerned with several problems. In the early years, many of them had bought American rails because investment per mile of line was so much lower in the United States than in Britain.²¹ Land was cheap and the legal expenses of incorporation were small compared with British figures. No one expected that initial revenue per mile of line would be as high as in Britain, but with the same operating ratio American railroads could not fail to pay handsome dividends, at least this was what British investors were told. What they failed to realize was that the operating ratio was bound to be higher on the cheaply built American roads than on the carefully constructed lines in Britain. The severe winters in parts of North America added to operating costs, especially since the small locomotives of the time were ineffectual in keeping the tracks free of snow.

Moreover, many American railroads were largely dependent on the carriage of agricultural products though it was apparently not until 1887 that British investors were warned against "one-crop" roads.²² On such lines revenues fluctuated with crop yields and prices, especially since the net returns of farmers affected the back-haul of manufactured products which bore higher freight rates. The "consist" of freight traffic in most of the United States and the proportion of revenue from passengers were quite unlike what prevailed on lines in Britain or even in New England. Based on ex-

²⁰ W. J. Menzies, *America as a Field for Investment* (Edinburgh, 1892), p. 18.

²¹ "How can this stupendous system of American railways [about 8,650 miles] with a traffic comparatively insignificant, among a people where profits on capital are high, and the rate of interest from 6 to 10 per cent be made to answer? This difficulty is explained, partly by the general [level] nature of the country, partly by the [cheap] mode of constructing the railways, and partly by the manner of working them." Dionysius Lardner, *Railway Economy* (London, 1850), p. 396. See also *Herapath's*, July 25, 1852: *Grand Trunk*, Semi-Annual Meeting, Jan. 23, 1874, quoted by Currie, *Grand Trunk*, p. 139.

²² *London Economist* (Oct. 8, 1887).

perience in both England and New England, a low operating ratio was looked upon as the key to financial success. Investors were continually being assured, at least by presidents of the Grand Trunk in the 1860's and 1870's, that the operating ratio would soon be reduced to the level prevailing in Britain. When this happened the investor could cease to worry. Color was lent to this expectation by the fact that excellent business in North America actually caused the operating ratio to fall. Optimistic reports by executives served to keep up the interest of British investors in American rails when, judging by a familiar statistic, they were likely to become discouraged. As was said at the time, "the average shareholder dearly loves a sanguine chairman, . . . one who belittles present difficulties and enlarges in a boldly prophetic vein upon the brilliance of future prospects."²³

The difference in capitalization per mile of line was significant in another way. In Britain, stocks and bonds represented an investment of the same amount of cash. From this point of view British roads were not overcapitalized, notwithstanding that legal expenses and the cost of land had been high. Moreover, thanks largely to stable level of rates and fares, most British railways were able to earn a reasonable return on investment. This was particularly true after about 1866. So, despite exceptions, they were not overcapitalized in terms of earning power. On North American railroads the nominal value of the bonds and shares which were issued was commonly far in excess of the original cost of the physical assets. Frequently, the proceeds from the sale of bonds constituted the only cash invested in the line, the common shares being given for promoters' services. If the company failed to pay reasonable dividends on its shares, it would be overcapitalized in terms of earning power as well as assets. Briefly, "in England, money was wastefully spent but still it was spent whereas in the American case the addition to the nominal capital is transparently without equivalent. It represents no real expenditure."²⁴

The history of overcapitalization of American railroads was summarized in a special American Railway number published by the *London Times* in 1912. "Up to 1850 new railways had been financed under a system which provided for primary construction by actual subscriptions and contributions in cash to capital stock.

²³ Henry Lowenfeld, "Investment Practically Considered," *Financial Review of Reviews* (1909), p. 417.

²⁴ Robert Giffen, *American Railways as Investments* (London, Stanford, 1873), p. 13. By the end of the century capital had been inflated through refunding. An issue of 6% debentures originally sold at par might be replaced with an issue of 4% debentures at 150 or less.

After that date, building became more and more financed on the basis of bonded indebtedness for primary construction. Anticipation of future dividends had thus to be capitalized. The result was that with the exception of the subsidized Transcontinental lines most railways beyond the Mississippi were for a generation managed . . . by the holders of securities which often represented little or no invested value. Hence many of the failures in 1873 and 1893. . . . The allusion is made here to accentuate yet another disadvantage under which, after the pioneering stage had passed, American railways laboured through want of proper initial supervision."²⁵ An earlier British writer tried to justify watered capital because otherwise "nobody would have taken the trouble to build railways in a new country or to advance the money wherewith to build them Water is in a measure beneficial to the investor because it is instrumental in giving him those high returns upon his *actual* investment and those rewards for past losses, which would be impossible without it. He also gets a good rate of interest on bonds bought at a discount and a fair return upon shares which originally cost him nothing or next to nothing."²⁶

As a rule, British railways paid out substantially all their earnings as dividends.²⁷ Although this policy kept investors happy, it meant that the level of freight rates had to be relatively high in order to have sufficient net earnings to pay interest and dividends on the heavy capitalization. Eventually, heavy "pay-outs" led to trouble, as explained later. Meanwhile, whenever new capital was needed to finance additions and betterments, British railways relied on the sale of new securities. Thus, to the heavy initial costs for land and organization expenses, there was added a growing amount of capital for new fixed assets.

In North America the practice, except on the Grand Trunk before new management took over in 1896, was to plow back earnings whenever possible. In this way the carriers tried to build up the value of the physical assets to the point where they equaled or exceeded the nominal value of the securities outstanding. From one point of view this policy helped bondholders since it increased the value of the fixed assets which technically secured their bonds. Be-

²⁵ *London Times*, June 28, 1912, p. 24.

²⁶ S. F. Van Oss, *American Railroads and British Investors* (London, 1893), pp. 68-69, 54-55.

²⁷ C. H. Grinling, "British Railways as Business Enterprises," in W. J. Ashley, ed., *British Industries* (London, 1903), p. 178, states that "owing to the predominance of shareholders' influence upon British railway policy, it has been the custom to divide the profits of each half year 'up to the hilt.' . . . The amount carried forward is usually because it is not possible to squeeze out another $\frac{1}{2}$ per cent." See also Chas. Eason, Jr., *Statistics of American Railways* (London, 1886), pp. 12-17.

sides, ample coverage of bond interest helped to bring bonds which had been sold at a discount up to par or even to a premium. On the other hand, as soon as the financial status of American railways improved and their bonds matured, they replaced them with new issues bearing lower interest rates. Smaller fixed charges and re-investment of profits added to the earning power of the corporation, thereby raising both the book value and the market price of its stock. For instance, in 1897 when the Lake Shore announced that it would replace its 7 per cent bonds with 3½'s, the price of its shares rose 12 points.²⁸ In short, though bondholders were helped by plow-backs, the chief gains went to common shareholders, most of whom lived in America.

In many instances, especially in the period before Morganization, plow-backs were out of the question because the railway was unable to earn even its bond interest. Then a drastic reorganization would be forced on the investors by management or by investment bankers in Wall Street or both. The railway would emerge from bankruptcy with its fixed charges reduced within its capacity to pay. Shareholders might be wiped out or compelled to pay an assessment while bondholders would be forced to accept a reduction in their principal, a lower rate of interest, income bonds, a more junior claim on physical assets and earnings, or a combination of these adjustments. Financial embarrassments were less frequent in Britain than in America.²⁹ When they did occur, British practice was not so much a change in the terms of the outstanding issues as the sale of new securities, such as pre-preference bonds, which had priority over the older ones.

The difference in their approach toward insolvency between American railway tycoons on the one hand and British investors on the other can be clearly seen in the Erie and the Grand Trunk. On these two roads British investors exercised a stronger influence than on most other North American railways where their money was invested. Regarding the Erie reorganization of 1859-1860, Stuart Daggett wrote that "wisdom would have seemed to indicate some scaling down of the charges to correspond [with earning power]. This did not enter into the views of the trustees; instead, they proposed to give preferred stock for all unsecured in-

²⁸ *London Economist* (March 6, 1897).

²⁹ The London, Chatham and Dover was in financial trouble from 1862 to about 1900. It was built by substantially the same firm of contractor-financiers as the Grand Trunk. The North British was in hot water in 1866. The Eastern Counties which operated from London to Cambridge and other points in East Anglia were notoriously poorly run and a financial failure. Vernon Sommerfield, *English Railways* (London, 1937), pp. 180 ff. Several smaller roads did not pay but eventually most of them were absorbed by larger systems.

debtedness, to extend the principal of the second mortgage coming due, to exchange old common stock for new, to levy an assessment . . . on both classes of new stock, and with the proceeds of the assessment to pay all coupons in arrears. . . . No saving in fixed charges worth mentioning was secured; no sacrifice was demanded of bondholders; and, save for the payment of assessments and the (new) stock given for floating debt, the stockholders' position was not made worse."³⁰ In 1868 Gould turned out the old managers and their English backers, and in the next few years thoroughly mismanaged the company. Following investigations by British investors in 1875 and again in 1885-1886, other financial reconstructions were undertaken but again they were not sufficiently radical to insure that the company would be able to pay its debts. It was not until later when the power of British investors had largely disappeared that the Erie could be more drastically reorganized in accordance with American practice.

The Grand Trunk was reorganized in 1862 but as was the case on the Erie, the over-all reduction in fixed charges was small. For the rest of the century it managed to struggle along by means of financial expedients of one sort or another. Its ordinary stock never paid a dividend, while returns on the second and third preference and even on the first were intermittent. In 1896, after some 40 years of inefficient management by executives sent out from Britain, the Grand Trunk engaged a general manager, Charles M. Hays, who was born and trained in the United States. Later on, the president of the Grand Trunk stated that Hays looked "with longing eyes for a reorganization on the American plan but we [the London Board] required of him that he should work out the Company's salvation on British lines, and no proprietor had to sell his holdings because he was unable or afraid to pay his assessment."³¹ In a sense, reorganization on the American plan eventually had to be accepted by British investors, for after the road was taken over by the Canadian government in 1920, a duly constituted Board of Arbitration decided that the ordinary shares and the three preference stocks of the railway had no value. It is fair to say that shareholders in the Grand Trunk and probably bondholders in some American railways would have been treated more generously if they had not lived abroad.³²

³⁰ Stuart Daggett, *Railroad Reorganization* (Cambridge, 1908), p. 35.

³¹ Grand Trunk, Semi-Annual Meeting, April 12, 1912, quoted by Currie, *Grand Trunk*, p. 372.

³² Currie, *Grand Trunk*, pp. 461-481. "So largely were the railways especially of the Western states built with European and particularly with English, money that for many years it was the fashion of Western demagogues in appealing to the passions of agricultural audiences to represent the 'bloated British bondholder' as the curse of the country. . . . If it were not for the necessity of paying interest on bonds to satisfy British

Rate wars were an obvious cause of the financial troubles of North American railroads in the last quarter of the nineteenth century. These greatly upset British investors because at home amalgamations, pools, agreements of various kinds, and the conservatism of railway executives had led to "sticky" prices, especially after the crisis of 1866. Though competition in rates and service did not cease, it was generally insipid compared with what prevailed in North America.³³ Besides secret rebates, midnight tariffs, failure to agree on rates, and readiness to use the slightest pretext to break any understanding that was arrived at, there were financial scandals on the Erie and political ones on the Union Pacific (the Credit Mobilier) and the Canada Pacific, an unsuccessful forerunner of the Canadian Pacific, in 1873. A shareholder of the Grand Trunk, after a visit to this continent in 1875, reported that commissions and bribes were tacitly sanctioned by officials of all kinds. What was looked upon in England as sharp practice was deemed commendable smartness in North America — provided it was successful.³⁴ In the words of Beatrice Webb, whose father, Richard Potter, was president of the Grand Trunk, "the circumstances of mid-Victorian Capitalist enterprise were hostile to any fixed standard of morality. . . . Precedence of the president's car over all other traffic; obsequious attention of ubiquitous officials; contemptuous bargaining with political "bosses" for land concessions and bills through legislatures — altogether a low moral temperature."³⁵ British investors were told that a low level of morality was typical "of every new country where rapid development has taken place, and where there are temptations to haste to be rich."³⁶ The striking thing was that, broadly speaking, British investors in American rails provided no effective business leadership and generally proved unable to correct the situation about which they complained.³⁷ In 1876 they were told that since the end of the Civil War Americans had invested more capital in their railways than had Europeans.³⁸ Inasmuch as Ameri-

greed, it was represented, the railways would be able to carry the farmers' products to market at vastly lower than the current rate." *London Times*, June 28, 1912, p. 30. J. F. Crowell, "Railway Receivership in the United States," *Yale Review*, Vol. VII (1898), pp. 318-330, is also critical of American railway managers for taking advantage of bondholders.

³³ Sir John Clapham, *An Economic History of Modern Britain* (Cambridge, 1932), Vol. II, pp. 183-188; *ibid.* (1938), Vol. III, p. 361. See also Edward Cleveland-Stevens, *English Railways: Their Development and Their Relation to the State* (London, 1915), pp. 230-239; H. M. Ross, *British Railways* (London, 1904), pp. 17-36; Royal Commission on Railways, 1867, *Report*; Joint Select Committee on Railway Amalgamation, 1872, *Report & Proceedings*.

³⁴ *Herapath's*, May 1, 1875.

³⁵ Beatrice Webb, *My Apprenticeship* (London, 1926), p. 7.

³⁶ Menzies, *America*, p. 21.

³⁷ L. H. Jenks, "British and American Railway Development," *Journal of Economic History* (Fall, 1951), pp. 375-388.

³⁸ *Herapath's*, April 27, 1876.

cans would be anxious to get a fair return on their money, railway rates would be stabilized at a reasonably high level. Unfortunately, this hope did not materialize for another 20 years.

To sum up, from the end of the Civil War until the mid-1890's, British investors purchased a growing volume of American railway securities, mainly bonds. They did so despite many drawbacks — a high operating ratio, stock watering, drastic reorganizations, rate wars, an allegedly low standard of business morality, and sudden cyclical swings in stock prices. On the other hand, purchases were sustained by several favorable factors at home and in North America. The repudiation of their debts by several republics of South and Central America served to direct investment to countries with stable governments. The soundness of some American railroads, such as the New York Central and the Pennsylvania, tended to offset less satisfactory experience with other American companies. The self-evident growth of the American economy was clearly a powerful factor. For investors in rails the obvious measure of expansion was mileage. From 1866 to 1886 the railway network of the United Kingdom grew at an average annual rate of 380 miles; of the United States at 4,938. "It is almost commonplace to say that it would be a waste of time to seriously inquire if anything like this rate of progress has been experienced in any other country, or in any other form of activity. It may be assumed to be quite unique."³⁹ Finally, investment "for the long pull" and the belief that land granted to railroads would eventually be very valuable were unquestionably important motives leading British investors to buy American rails.

In regard to shares and even to bonds sold at a discount, these motives were supplemented, probably overshadowed, by the hope of a quick speculative profit. In 1882 a London firm of stockbrokers used Grand Trunk third preference to illustrate the gains which were possible from "puts and calls." It also undertook to buy these shares on margin. It guaranteed its "Clients immunity from loss beyond a certain fixed amount in an ordinary speculative account" because, so it said, it "took the risk of closing the stock when the cover has run off."⁴⁰ In 1886 another stockbroker used Grand Trunk ordinary, second and third preference as examples of the profits that might be made from operating on margin.⁴¹ The London *Economist* called attention to the quick profits which an astute or fortunate in-

³⁹ Skinner, "British Investments."

⁴⁰ W. Gutteridge & Co., *Speculation and Investment in Stocks and Shares with a Minimum of Risk* (London, 1882), p. 12.

⁴¹ Geo. Adam & Co., *Stock Exchange Investments: Fluctuations of Prices and How to Benefit Thereby* (London, 1886).

vestor might have made from American rails in the summer of 1884.⁴² New York Central shares had risen from a low of 94% in June to a closing price of 108% on July 28, Central Pacific from 30 to 39%, and Northern Pacific preferred from 37% to 49%.

Later on, brokers stressed the advantage of speculating in shares of the Canadian Pacific. For this company, "a calculation of inherent value would be injudicious and misleading, as possibilities and not certainties, would have to be taken into consideration. When a stock moves between 34 and 94 in the space of three years (1894-1897), it can only be called a speculation. Future generations will most likely deal in Canadian Pacific at hundreds per cent premium as there is no undertaking in the world with equally fine prospects. Present generations, however, must expect to see this stock oscillate widely between a premium and a heavy discount. As a speculation with uncertain dividends but a large chance of increase in capital value, Canadian Pacific has hardly its equal."⁴³

Nor did stockbrokers forget the Grand Trunk as a possible speculation for their clients. Between 1897 and 1905 Grand Trunk third preference fluctuated between 9% and 60. During that period it paid an aggregate of only 3 per cent in dividends. As a writer in the *Financial Review of Reviews* explained, "from an investment point of view, such an investment yield is contemptible: yet from a speculative standpoint, a stock which is six times as valuable at one time as it was at another time in the same eight-yearly period, is a gambling counter well worth playing with, for fluctuations in value which work out at the rate of 600% are not to be obtained amongst the average run of speculative stock."⁴⁴ Substantially all the shares of the Grand Trunk had always been held in Britain and so speculation in it represented merely a transfer of ownership within the United Kingdom rather than a net addition to British holdings of American rails. Nevertheless, the possibility of speculative gains on the Grand Trunk must have encouraged at least some British investors to buy newly issued stock of American railways or to purchase stock formerly held by Americans.

Statistical studies of average rates of return, especially such studies as were available to investors in the nineteenth century, are subject to innumerable qualifications. But it seems that up to the 1890's the

⁴² London *Economist* (Aug. 9, 1884). For longer run changes in prices see A. H. Cole and Edwin Frickey, "The Course of Stock Prices, 1825-86," *Review of Economic Statistics* (Aug., 1928), pp. 117-139.

⁴³ W. H. Duncan, *How Money Makes Money* (London, 1897), pp. 95-96.

⁴⁴ *Financial Review of Reviews* (Nov., 1905), p. 18.

average yield on British rails was more steady than on American.⁴⁵ An analysis made in 1887 by (Sir) Joseph S. Jeans showed that since 1854 there had been only three years when the average rate of dividends on Home rails had fallen below 4 per cent and three in which it had risen above 4½ per cent.⁴⁶ By comparison, the return on American railways over the years 1871-1884 had ranged between 2.8 and 5.4 per cent with an average of 4½ per cent. Though Jeans' methods may have been faulty, his conclusion seems to be sound. "Unmistakably . . . American railways are, in the main, both very much better and very much worse, regarded as investments, than those of England. . . . American railways are a much greater lottery than English and they require to be much more closely looked into."⁴⁷

Statistics on the annual purchases and holdings of American rails are available elsewhere and are being revised.⁴⁸ In any case it is the object of this article to deal with British investors in terms of attitudes rather than quantitatively. It is sufficient for our purposes to note that after 1893 or thereabouts there was a decline in British purchases and holdings of American rails *relative* to their purchases and holdings in other areas and in other industries. In the early years of the twentieth century, British investors bought American and especially Canadian rails in larger absolute amounts than formerly but their purchases of such securities, compared with total British investment overseas, were not as large as they had been. Furthermore, American investors repatriated stocks and bonds formerly sold to capitalists overseas.

The reasons for the relative decline are numerous. First, other countries besides the United States and Canada were proving to be very profitable outlets for British capital. Secondly, within the United States the bankruptcy of so many railroads in the early 1890's, the silver controversy, the Hill-Harriman battle of 1901, and the bankers' panic of 1907 proved upsetting to British investors.

⁴⁵ Ray Morris, "Railways," in *Encyclopaedia Britannica*, 11th ed., Vol. XXII (1910-1911), p. 834.

⁴⁶ J. S. Jeans, *Railway Problems* (London, 1887), p. 49. In 1862, 1863, and 1867 average returns were 3.86, 3.99, and 3.91 per cent and in 1871-1873 they were 4.66, 4.74, and 4.59.

⁴⁷ *Ibid.*, p. 58. American and Canadian lines give a "better return than English railways but are subject to speculative influences of many sorts and can hardly be recommended for safe, permanent investment." Wm. Cotton, *Everybody's Guide to Money Matters* (London, 1898), p. 67.

⁴⁸ Margaret Myers, "The Investment Market after the Civil War," in Williamson, *Growth of American Economy*, p. 573; "Government, Corporation and Other Loans issued from Nov. 1, 1887, to Oct. 31, 1888," *Journal of Institute of Bankers* (1888), pp. 673-680; (Sir) Geo. Paish, "Great Britain's Capital Investments in Other Lands," *Journal of the Royal Statistical Society* (Sept., 1909), p. 479. James J. Madden of the University of Western Ontario hopes shortly to publish his results. His comments on this paper are gratefully acknowledged.

Perhaps too they were more willing to buy the securities of railways which were in the process of construction than of those which were already in operation. Once the railway network of the United States was reasonably complete, British investors could see that American rails were exposed to cyclical forces which they had tended to overlook during the years when railways were first being built into underdeveloped regions.

Another factor accounting for the relative decline of British investment in American rails was the increased ability of American investors to finance their own businesses. Moreover, British investors were led to believe that Americans were sending poorer grade securities abroad and keeping the best for themselves. In 1892 a Scottish writer stated that "the Americans are quite capable themselves of taking and holding all really good American securities."⁴⁹ In other words "although the Americans may need outside capital, there is never any lack of local support for a really good thing."⁵⁰ At all events, the Canadian Pacific and the Grand Trunk Pacific were proving more attractive to British investors than rails in the United States.

Finally, the relative decline can be explained by the changing investment status of Home rails. At one time, they were regarded as "a solid respectable investment without which no self-respecting capitalist's tin-box was complete. Now [1906] wider possibilities which have opened up to the investor have led him to look on them more critically. Their yield is by no means steady and their prices are just as liable to demoralisation as those of less vulnerable securities."⁵¹ Between 1896 and 1905 Home rails had depreciated an aggregate of about \$300,000,000, or 30 per cent.⁵² In 1902 nearly 60 per cent of the ordinary and preferred stocks of British railways paid nothing, whereas between 1870 and 1894 only 14 per cent of the common stock paid no dividends.⁵³ It was clear that "from an investor's point of view the great feature of [Home] railway securities is the decline in their yield. Twenty years ago it was 5 per cent. Now a return of 4 per cent is good and it is often 3 per cent."⁵⁴ Another report stated that "until the last few years the confidence of the British investor in [Home] railway stocks was never seriously shaken. Dividends were received with unfailing regularity. The

⁴⁹ Menzies, *America*, p. 18.

⁵⁰ J. D. Walker and J. Watson, *Investors' and Shareholders' Guide* (Edinburgh, 1894), p. 242.

⁵¹ *Financial Review of Reviews* (Sept., 1906), p. 204, quoting the *London Times*.

⁵² W. J. Stevens, *The British Railway Outlook* (London, 1906), p. 11.

⁵³ Clapham, *Economic History*, Vol. III, p. 348.

⁵⁴ W. J. Stevens, *Investment and Speculation in British Railways* (London, 1906), p. 56.

average yield was 2½ per cent and for the most part ordinary stock increased in value. Any decline in dividends was directly attributable to adverse changes in general trade . . . and generally proved to be temporary. The unsatisfactory results of 1900 and 1901 were due to a phenomenal advance in working expenses. It began to be suspected that capital was being spent with too free a hand and without that careful supervision which alone could yield a fair return."⁵⁵

British railways were, in fact, suffering from rising wage rates, labor unrest, and relatively stable freight rates. They needed huge additions to capital in order to provide multiple tracks and more up-to-date equipment. Their policy of heavy "pay-outs" relative to earnings made it difficult for them to get funds through re-investment.⁵⁶ Finally, it was claimed that they were being inefficiently operated compared with carriers in the United States where the rate wars of the nineteenth century had continually stimulated managers to secure economies in every possible way.⁵⁷

The growing difficulties of British railways brought their yields below those of American railroads taken as a group. Between 1900 and 1907 the return on the capital invested in the American railway system was said to be more than 1 per cent higher than on Home rails. In 1908, despite the panic of the previous year, the difference was still .56 per cent in favor of American rails.⁵⁸

During the last quarter of the nineteenth century British investors had bought American rails notwithstanding that (a) they yielded no more on the average than Home rails and (b) their earnings were more unstable from one year to the next. In the twentieth century United States rails earned higher average yields than Home rails. Even so, British purchases of North American rails declined relative to all British investments overseas. This apparently illogical behavior is explained by two factors. In the nineteenth century British investors hoped for capital gains on their purchases of American rails, either on bonds bought at a discount or on stocks which they bought mainly, so it would appear, in the 1880's. In the twentieth century British investors took the view that since Home rails were not nearly so good as they had been, American rails were not "good buys" compared with other opportunities which were opening up to British investors.

⁵⁵ *Ibid.*, pp. 1-2.

⁵⁶ Grinling, "British Railways," pp. 166-167, 168, 172; W. J. Stevens, *Investment*, pp. 11-14; W. J. Stevens, *Railway Outlook*, pp. 18ff.

⁵⁷ E. B. Dorsey, *English and American Railroads Compared* (New York, 1887); Geo. Paish, *The British Railway Position* (London, 1902).

⁵⁸ Morris, "Railways."

In brief, after 1893 there was a relative decline in British purchases of North American rails because other countries were attracting British capital, several American railways had failed in the 1890's, Americans now had more money to invest in their own railways and, so it was said, they sent only their lower grade securities overseas. Finally, low average yields and capital losses on Home rails discouraged British investors from buying American rails to the same extent, compared with their other investments, as in the period between the end of the Civil War and about 1893. The financial literature of the time rarely suggests that for patriotic reasons British investors should put their money in Canada rather than in the United States. It does suggest that unless British investors completely ignored the advice which was given them, their holdings of shares were larger than is often supposed.⁵⁹ The emphasis of this article, however, is not on quantitative measures but on attitudes. In this connection it must be emphasized again that people choose their investments for such complex and often contradictory motives that no simple explanation can be entirely true.

One other point must be discussed. Why did British investors take such a passive attitude toward the management of railways on this continent? Why, on the whole, did they exercise so little control over the operations of North American railroads in which they invested? Bondholders were usually supine when railways were reorganized and British shareholders as a rule exercised little direct influence over day-to-day operations. This is understandable where British investors were in a minority, where the annual meetings were held on this side of the Atlantic, and where public opinion was antagonistic to foreigners sitting on boards of directors. Besides, large British holdings of the shares of American railways were sometimes kept in the name of brokers or arbitrage dealers in New York City.⁶⁰ British investors were apparently willing to forego the right to vote in order that they might be able to sell their shares without delay. Yet even on the Grand Trunk, which held its semiannual meetings

⁵⁹ Overseas investors held substantial proportions of the stocks of the Illinois Central; Pennsylvania; Louisville and Nashville; the New York, Ontario and Western; Reading; Great Northern; Baltimore and Ohio; the Chicago, Milwaukee and St. Paul; and probably other roads. These holdings declined substantially after 1905 when American investors began to repatriate many of the holdings. Ripley, *Railroads: Finance*, p. 5.

⁶⁰ According to Price in Skinner, "British Investments," p. 102, six British investors owned \$17,269,000 of the stock of the Ontario and Western which was held in the name of a broker in New York. "The result is that it is a very easy thing for an American Board of Directors to be elected upon a very small amount of stock." In 1911, during a period of unsettled money in Berlin, perhaps \$100,000,000 in railway stocks was put up as security for short-term loans in New York. It was found that these shares had for years been held in New York for the account of their foreign owners. "What was true of Berlin institutions was true also of banks in London, Paris, Amsterdam, and other foreign cities." *London Times*, June 28, 1912, p. 30.

in London and which was almost entirely owned in Britain, shareholders were easily pushed around. The meetings were often acrimonious, but presidents developed exceptional skill in dealing with irate investors.⁶¹ From time to time shareholders would force an investigation which commonly whitewashed the management. In 1895 the English Association of Railway Bond and Shareholders was instrumental in bringing in a new board which revamped the executive in Canada. Before long, however, the president of the Grand Trunk persuaded shareholders to invest vast sums in the construction of a line to the Pacific under conditions which, even at the time, made success extremely doubtful.

The relative impotence of shareholders, a situation which nowadays we associate with the research of Berle and Means, was commented on in Britain by the Parliamentary Committee of 1872. "On railways there is a powerful bureaucracy of directors and officials. The real managers are far removed from the influence of the shareholders and the latter are to a great extent a fluctuating and helpless body. The history of railway enterprise shows how frequently their interests have been sacrificed to the policy, the speculations, and the passions of the real managers. On the other hand, the directors and principal officers of these great undertakings are often men of high standing, who feel that their position is something different from that of a mere trading concern, and become in a certain sense amenable to public opinion, and especially to its expression in Parliament. Thus, for good or evil, the management of railways differs from that of an ordinary trade or manufacture, and approximates in some degree the business of a public department."⁶²

Broadly speaking, the attitude of British investors toward the control of North American railroads was not much different from their attitude toward Home rails though they were probably more critical of management than are American investors today. The losses that British investors sometimes experienced on American rails were not so much a result of their own unwillingness to take action as to the comparatively unrestrained competition in North America in the 1870's and 1880's, which even American executives and bankers were helpless to prevent.⁶³ Perhaps it was unfortunate that

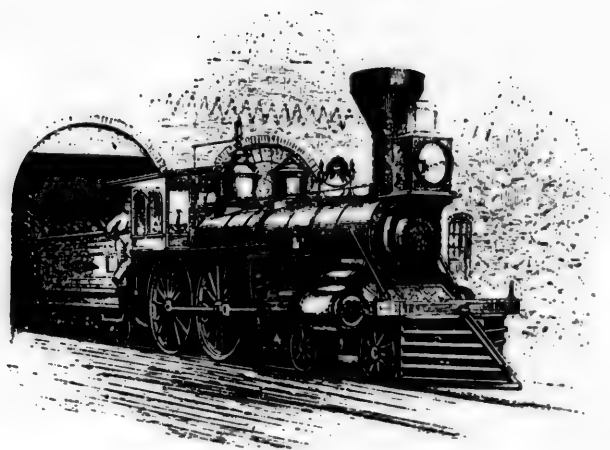
⁶¹ Beatrice Webb told Bertrand Russell that her father, a president of the Grand Trunk and several companies in Britain, believed that it was "the recognized function of directors to keep shareholders in their place." Bertrand Russell, *Portraits from Memory* (London, 1956), p. 102.

⁶² Joint Select Committee, 1872, *Report*, pp. xxix-xxx.

⁶³ In Jan., 1889, some of the strongest financial houses in the United States—Drexel Morgan, Brown Bros., and Kidder Peabody—failed to protect the investors' interests. A. T. Hadley, "The Prohibition of Railroad Pools," *Quarterly Journal of Economics* (Jan., 1890), p. 166.

British purchases of American rails began relatively to decline in the early twentieth century when Morganization and a greatly strengthened Interstate Commerce Commission brought stability to the industry. As things turned out, however, British capitalists withdrew their investments in American rails at reasonably good prices. On account of the exigencies of war, they had to dispose of most of their bonds and shares before 1920 and they sold the rest (including the Canadian Pacific) during World War II. While they may have suffered from the bitter competition of the nineteenth century when railways were run like "mere trading concerns," they escaped the capital losses and low returns brought about by competition with other agencies of transportation and aggravated, many people contend, by governmental controls whereby railways "approximate in some degree to the business of a government department." British capitalists, being human, were often disappointed with individual railways or the situation as a whole. Yet all things considered, they reaped tolerably good returns from their investment in North American rails. The contribution which British investors made to the economic development of North America between about 1850 and 1945 is too great and too obvious to require elaboration.







Studies In Enterprise, 1959

A Selected Bibliography

by Lorna M. Daniells

REFERENCE LIBRARIAN
AT HARVARD GRADUATE SCHOOL OF
BUSINESS ADMINISTRATION

The scope of our annual bibliography has been enlarged this year to provide more comprehensive coverage than was attempted in the original "Studies in Enterprise" and its 1958 Supplement.* Although still limited geographically to America and Canada, this list now covers histories of industries, histories of specific corporate functions, episodes in the history of companies, and histories of trade associations and trade unions, as well as over-all histories of companies and biographies of businessmen.

It attempts to list the most significant books, pamphlets and articles published in 1959, including a few earlier books that had previously escaped the compiler's attention. The arrangement is alphabetical by the subject of each study. Cross references have been used freely so that the bibliography can be approached from an industry and functional as well as from a company point of view. A few descriptive notes have been added to give a better understanding of the coverage of

* *Studies in Enterprise: A Selected Bibliography of American and Canadian Company Histories and Biographies of Businessmen* (Boston, Baker Library, Harvard University Graduate School of Business Administration, 1957. 169 pp. \$4.50), and Supplement in *Business History Review*, Vol. XXXIII, No. 2 (Summer, 1959), pp. 217-243, offprint \$1.00.

a particular work, or to identify further the specific nature of a business or occupation.

We earnestly solicit comments as to the usefulness of this compilation and changes that should be made in future editions.

Abbott Laboratories, Inc.

MAHONEY, TOM. "Abbott Laboratories," *The Merchants of Life*. N.Y., Harper, 1959, pp. 129-143.

Accounting Firms. See entry for George S. Olive and Company

Advertising in Newspapers

SHAW, STEVEN J. "Colonial Newspaper Advertising: a Step Toward Freedom of the Press," *Business History Review*, Vol. XXXIII, No. 3 (Autumn 1959) pp. 409-420.

Advertising in Periodicals

JONES, EDGAR R. *Those Were the Good Old Days; a Happy Look at American Advertising, 1880-1930*. N.Y., Simon and Schuster, 1959. 447 pp.

A 50-year collection of advertisements that have appeared in magazines, with no commentary.

ROWSOME, FRANK, JR. *They Laughed When I Sat Down; an Informal History of Advertising in Words and Pictures*. N.Y., McGraw-Hill, 1959. 181 pp.

The story of magazine advertising from about 1860 to 1938, with many illustrations.

Advertising, Patent Medicines. See entry for Medicines - Patent, Proprietary, etc.

Agriculture. See entries for Cattle Industry; Dairy Industry; Food Industry; Thomas Massie Family; Leonard J. Rose; Sheep Husbandry; Wine Industry.

Air Lines. See entry for Continental Air Lines.

Airplane Manufacturing. See entries for Bell Aircraft Corporation; United Aircraft Corporation.

James P. Allaire

BROWN, JAMES S. *Allaire's Lost Empire; a Story of the Forges and Furnaces of the Manasquan*. Freehold, N.J., Transcript Printing House, 1958. 88, [4] pp.

American Bank Note Company

GRIFFITHS, WILLIAM H. *The Story of American Bank Note Company*. N.Y., 1959. 92 pp.

American Cyanamid Company. Lederle Laboratories Division.

MAHONEY, TOM. "Lederle Laboratories," *The Merchants of Life*. N.Y., Harper, 1959, pp. 156-181.

American Federation of Labor

TAFT, PHILIP. *The A.F. of L. From the Death of Gompers to the Merger*. N.Y., Harper, 1959. 499 pp.
An earlier volume entitled *The A.F. of L. in the Time of Gompers* was published in 1957.

American Petroleum Institute

FANNING, LEONARD M. *The Story of the American Petroleum Institute; a Study and Report (With Personal Reminiscences)*. N.Y., World Petroleum Policies, 1959. 168 pp.

Argentine Central Railway

HOLLENBACK, FRANK R. *The Argentine Central, a Colorado Narrow-Gauge*. Denver, Sage Books, 1959. 80 pp.

Armour & Company

LUBAR, ROBERT. "Armour Sees Fat Years Ahead," *Fortune*, Vol. LX, No. 4 (October 1959) pp. 117-125+.

Associations. See entries for American Petroleum Institute; Committee for Economic Development; Manufacturers Association of Montgomery

County, Pa.; National Association of Banking Women; National Association of Manufacturers.

Automobile Industry

RAE, JOHN B. *American Automobile Manufacturers; the First Forty Years*. Philadelphia, Chilton, 1959. 223 pp.

See also entries for Henry Ford; Roy C. Ingersoll; Francis E. Stanley.

James Baird

COLLEY, FRANK B. "James Baird, Early Santa Fe Trader," *Bulletin of the Missouri Historical Society*, Vol. XV, No. 3 (April 1959) pp. 171-193.

Baltimore Company

JOHNSON, KEACH. "The Baltimore Company Seeks English Markets: a Study of the Anglo-American Iron Trade, 1731-1755," *William and Mary Quarterly*, Vol. XVI, No. 1 (January 1959) pp. 37-60.

Bank of New York

STREETER, EDWARD. *Window on America; the Growth of a Nation as Seen by New York's First Bank, 1784-1959*. N.Y., The Bank, 1959. 123 pp.

Bank of Virginia

BOUSHALL, THOMAS C. *Banking for Main Street, U.S.A. (1922-1959)*. N.Y., Newcomen Society in North America, 1959. 24 pp.

Banking

COLE, DAVID M. *The Development of Banking in the District of Columbia*. N.Y., William-Frederick Press, 1959. 629 pp.

FEDERAL RESERVE BANK OF BOSTON. *Commercial Banking in New England, 1784-1958*. Boston, The Bank [1959]. 55 pp.

A brief history, first published as part of the Bank's 1958 annual report.

See also entries for Bank of New York; Bank of Virginia; Hanns Dittsheim; First National Bank of Wichita; Maine Savings Bank; Massachusetts Land Bank of 1740; National Association of Banking Women; Portsmouth Savings Bank; Rockland-Atlas National Bank of Boston; Savings Bank Trust Company; Union Bank of New London; George Woods.

Phineas T. Barnum

WALLACE, IRVING. *The Fabulous Showman; the Life and Times of P. T. Barnum*. N.Y., Knopf, 1959. 317 pp.

Bell Aircraft Corporation

FANEUF, LESTON. *Lawrence D. Bell, a Man and his Company, Bell Aircraft*. N.Y., Newcomen Society in North America, 1958. 36 pp.

Beverage Industry. See entries for Coca-Cola Company; Hiram Walker.

Birdsboro Steel Foundry and Machine Company

BROOKE, G. C. *Birdsboro: Company with a Past Built to Last*. N.Y., Newcomen Society in North America, 1959. 24 pp.

Birge Company (wallpaper manufacturers)

COPLEY, FRANK W., AND W. H. GLOVER. "The Birge Story," *Niagara Frontier*, Vol. 6, No. 1 (Spring 1959) pp. 1-14.

Lowell Birrell

WISE, T. A., AND SPENCER KLAU. "The World of Lowell Birrell," *Fortune*, Vol. LX, No. 5 (November 1959) pp. 170-172+.

The first of two articles on "The Spoilers," a group of ruthless financial operators.

Bodine Electric Company

BENNETT, HOWARD F. *Precision*

Power; the First Half Century of Bodine Electric Company. N.Y., Appleton-Century-Crofts, 1959. 336 pp.

Borden Company. See article by Frantz under *Business History Research and Writing*.

Borg-Warner Corporation. See entry for Roy C. Ingersoll.

Brink's, Inc.

SENG, R. A., AND J. V. GILMOUR. *Brink's, the Money Movers; the Story of a Century of Service.* Chicago, Printed by Lakeside Press, 1959. 128 pp.

Donaldson Brown (executive with Du Pont and later with General Motors)

BROWN, DONALDSON. *Some Reminiscences of an Industrialist.* [Port Deposit, Md., 1957] 166 pp.

Brunswick-Balke-Collender Company (bowling alleys, sporting goods, etc.)

FREEDGOOD, SEYMOUR. "Brunswick's Automatic Money-Maker," *Fortune*, Vol. LX, No. 5 (November 1959) pp. 157-161+.

Buildings, Office

SHULTZ, EARLE, AND WALTER SIMMONS. *Offices in the Sky.* Indianapolis, Bobbs-Merrill, 1959. 328 pp. "The story of the office building as a tool of commerce and a prime factor in the growth of cities." - p. 17.

Buildings, Prefabricated. See entry for National Homes Corporation.

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ALLEN, C. F. H. "Spencer S. Bullis," *Railway and Locomotive Historical Society Bulletin*, No. 100 (April 1959) pp. 85-91.

Daniel Burnap

HOOPES, PENROSE R. *Shop Records of*

Daniel Burnap, Clockmaker. Hartford, Connecticut Historical Society, 1958. 188 pp.

Burroughs Wellcome & Company

MAHONEY, TOM. "Burroughs Wellcome & Co.," *The Merchants of Life.* N.Y., Harper, 1959, pp. 95-115.

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FERGUSON, E. JAMES. "Business, Government, and Congressional Investigation in the Revolution," *William and Mary Quarterly*, Third Series, Vol. XVI, No. 3 (July 1959) pp. 293-318.

PAUL, ARNOLD M. "Legal Progressivism, the Courts, and the Crisis of the 1890's," *Business History Review*, Vol. XXXIII, No. 4 (Winter 1959) pp. 495-509.

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DANIELLS, LORNA M. "Studies in Enterprise, 1958; a Selected Bibliography of American and Canadian Company Histories and Biographies of Businessmen," *Business History Review*, Vol. XXXIII, No. 2 (Summer 1959) pp. 217-243.

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[and Business] History," *Journal of Economic History*, Vol. XIX, No. 1 (March 1959) pp. 1-121.

This entire issue is devoted to bibliographic articles by recognized authorities. Contents: "American History to 1789," by L. A. Harper; "The United States, 1789-1860," by C. Goodrich; "The United States, 1861-1900," by T. LeDuc; "The Twentieth Century," by T. C. Cochran; "Canada," by W. T. Easterbrook; "Recent Contributions to Business History: The United States," by J. G. B. Hutchins.

SUPPLE, BARRY E. "The New Business History," *The Executive*, Vol. 3, No. 3 (August 1959) pp. 17-20. Some outstanding examples of business histories and why the busy executive should find the time to read them.

Business History Research and Writing

ALLAN, D. G. C. "Business History and Business Records," *The Manager* (Great Britain), Vol. 27, No. 4 (April 1959) pp. 240-241+.

BOLINO, AUGUST C. "The Businessman and Business History," *Commerce and Finance; Occasional Research Reports* (St. Louis University, Bureau of Business and Economic Research) No. 3 (February 1, 1958) 4 pp.

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FRANTZ, JOE B. "Borden at the Century Mark: Case Study of a Centennial Observance," *Business History Review*, Vol. XXXIII, No. 4 (Winter 1959) pp. 469-494.

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MCDONALD, NORBERT. "The Business Leaders of Seattle, 1880-1910," *Pacific Northwest Quarterly*, Vol. 50, No. 1 (January 1959) pp. 1-13. A survey of 87 business leaders as to education, origin, religious and political affiliation, etc., and a comparison of these characteristics with those in several previously published surveys on a national scale. This paper is based in part on the author's Ph.D. thesis entitled "Seattle's Economic Development, 1880-1910" (University of Washington, 1959).

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WALSH, RICHARD. "The Charleston

- Mechanics: a Brief Study, 1760-1776," *South Carolina Historical Magazine*, Vol. LX, No. 3 (July 1959) pp. 123-144.
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- Canadian Steamship Lines, Ltd.**
- DEMPSEY, JOHN B., II. "Canada Steamship Lines, Limited: World's Largest Inland Water Transportation Company," *Inland Seas*, Vol. 15, No. 1 (Spring 1959) pp. 4-14.
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- Carolina Power & Light Company**
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- Herbert L. Carpenter**
- MARSH, WILLIAM B. *Adventures in Opportunity; Being the Remarkable Story of Herbert L. Carpenter and the Carpenter Container*. N.Y., William Barton Marsh Company, 1958. 168 pp.
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- See also entry for **Teschemacher and deBillier Cattle Company**.
- Celanese Corporation of America**
- "Celanese Corp. Shortens its Skirts," *Fortune*, Vol. LX, No. 6 (December 1959) pp. 124-128+.
- Chain Stores**
- LEBHAR, GODFREY M. *Chain Stores in America, 1859-1959*. Centennial Edition. N.Y., Chain Store Publishing Corp., 1959. 401 pp.
Revision of a book published in 1952.
- Chemical Industry.** See entry for **Drug Trade**; **Koppers Company**.
- Chesapeake and Delaware Canal**
- GRAY, RALPH D. "The Early History of the Chesapeake and Delaware Canal," *Delaware History*, Vol. VIII, No. 3 (March 1959) pp. 207-264; No. 4 (September 1959) pp. 354-397.
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- Clockmakers.** See entry for **Daniel Burnap**.
- Clothing Industry**
- FELDMAN, EGAL. "New York Men's Clothing Trade, 1800 to 1861." Ph.D. Thesis, University of Pennsylvania, 1959. 309 pp.
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- KAHN, E. J., JR. "Profiles: the Universal Drink," *New Yorker*, Vol. XXXIV, No. 52 (February 14, 1959) pp. 37-40+; Vol. XXXV, No. 1 (February 21) pp. 39-40+; No. 2 (February 28) pp. 35-36+; No. 3 (March 7) pp. 39-40+.
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Samuel Colt

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WILDE, FRAZAR B. *Time Out of Mind.* N.Y., Newcomen Society in North America, 1959. 28 pp.

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BLICKSILVER, JACK. *Cotton Manufacturing in the Southeast; an Historical Analysis.* Atlanta, 1959. 178 pp. (Georgia State College of Business Administration, Bureau of Business and Economic Research. Studies in Business and Economics. Bulletin, No. 5).

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of the cotton industry in the Southeast, rather than a definitive history. - Cf. Preface.

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"A Printers' Ink Portrait: Gardner Cowles," *Printers' Ink*, Vol. 267, No. 1 (April 3, 1959) p. 56+; No. 2 (April 10) pp. 47-51; No. 3 (April 17) p. 68+.

Credit Mobilier of America

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WAINWRIGHT, NICHOLAS B. *George Croghan, Wilderness Diplomat.* Chapel Hill, University of North Carolina Press, 1959. 334 pp.

Dairy Industry

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William F. Davidson

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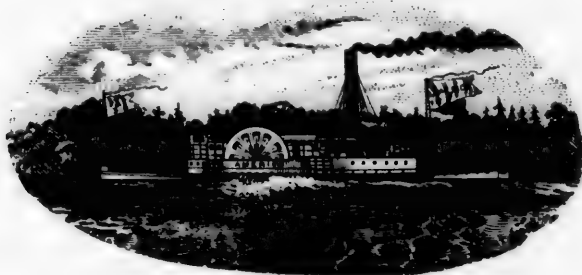
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THE BUSINESSMAN SPEAKS TO HISTORIANS

ARTHUR M. JOHNSON

BARRY E. SUPPLE

*Assistant Professors of Business History
at Harvard Graduate School of
Business Administration*

For a brief article on business records and business history (*Business History Review*, Autumn, 1959) we adopted the title "Shop Talk" and suggested that business historians had been talking to themselves too long. What was needed, we suggested, was a sharing of their problems and objectives with the businessman. By promoting such a mutual understanding, business history would be improved and a business society would be better able to obtain an accurate picture of itself. Specifically, we tried to isolate problem areas in the preservation and use of business records for historical purposes, and to provide some ground rules that might prove helpful both to historians and businessmen. In conclusion we invited representatives of each group to contribute their ideas. Subsequently, and without solicitation on our part, this article was reprinted in *The Executive*, a widely circulated reading guide for top management. The editor of this publication specifically called attention to our invitation to readers to contribute their ideas. Yet these published appeals to both business historians and top management to help themselves and each other produced absolutely no response! It seemed that business historians had stopped "talking shop" among themselves and that business-





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men had more important things to talk about than history, even their own history.

After such an experience we felt that we knew what Tolstoy meant when he described the "new history" as a deaf man answering questions which no one had asked. Our only comfort is the assumption that the absence of any response reflects the genuine seriousness of the problem to which we addressed ourselves. It is partly for this reason that we feel obliged to return to the subject. In addition, however, since the original article was published we have secured further information bearing on it, and this is our principal reason for writing a second article.

Anticipating the publication of "Shop Talk" we decided to send a questionnaire to a cross-section of American business firms, asking specific questions about their records-retention programs and about their attitudes and policies with respect to use of their records by historians. The firms were selected on a random basis, although we tried to cover a representative group of larger firms in industries as diverse as capital goods, consumer goods, transportation and communication, natural resources, finance, and legal services. In all, we contacted 221 firms and received replies from 93 of them. Eighty-three of the replies were accompanied by completed or semicompleted questionnaires.

Before reporting on the results of the questionnaire it might be well to attempt to give our explanation of the complete lack of response to the published article compared with the unexpectedly good response to the questionnaire. There seem to be three major explanations, substantiated by internal evidence in the questionnaires that were returned. First, the questionnaires were addressed to specific individuals in specific firms whereas the article addressed readers in general. Obviously the chances of reply in the former case were much better than in the latter. Secondly, the questionnaire asked definite questions of a factual nature whereas the article solicited "ideas." Significantly, only a handful of the returned questionnaires contained any response to our invitation to comment on the article, a copy of which accompanied each inquiry. Thirdly, the Harvard Business School has built up a fund of good will among businessmen that provides a stimulus to cooperation in a School-backed survey. This fact was mentioned in several covering letters to questionnaires.

Despite the lack of response to the article, we are still of the opinion that the retention of records for historical purposes and access to them by competent historians is an important area for discussion. We know on general and specific grounds that interest in the writing of company histories is mounting. In the course of the survey itself we uncovered several firms contemplating a history. We also know that projects of more than passing significance have been hampered, altered, or hamstrung by problems of getting access to company records or finding that valuable records have been destroyed without reference to their historical significance. The article and questionnaire were, in fact, inspired initially by such experiences both inside and outside the Harvard community. Finally, our failure to uncover widespread concern about the records-retention and access problem does not mean that the problem is non-existent. In fact, the apparent lack of recognition makes the problem especially serious, for once records are destroyed the information they

contain is generally gone beyond recall. As more and more firms and industries come to the decision to have their histories written, the impact of past decisions on records destruction will be more fully felt. This point was brought out in our survey by a question asking for the respondents' views on the major problems of having a history written. Of 95 comments, 26 mentioned specifically the difficulties of finding source material.

. . .

It appeared from the response to our questionnaire that businessmen's attitudes toward business history reflect a much more pragmatic viewpoint than the scholar's. In reply to the question about the principal value to the company of a company history, 24 of 83 comments stressed public relations value. One company put it quite bluntly: "We take [the] position that our history is only incidental to sales of our product. . . . We would only publish a history if it would be of some concrete help in advancing the company's future, saleswise or developmentwise." Twenty-two replies mentioned the usefulness of a history for employee relations and 28 mentioned usefulness for reference purposes. When the question was rephrased in terms of the possible value of a company history to other businessmen and the public, the number of comments dropped to 49, with 20 again mentioning reference value. Six companies indicated that they thought there would be no value to other businesses or to the public in their history, and by implication the 34 who answered the preceding question but not this one shared these sentiments. In other words, roughly half the companies returning questionnaires apparently feel that their histories would hold little interest for readers outside the firm.

Checking these attitudes with requests for access to noncurrent records, there seems to be good reason for many businessmen to feel that their activities have little historical interest for the general public. Typically, according to this survey, a business firm in a given year will receive no requests from outsiders for access to noncurrent records. If there are such requests, it is very unlikely that they will number more than five, of which one or two at best may be for historical purposes. It would appear, then, that few historians have been knocking vigorously — or at all — on the doors of the group of businessmen that we contacted. If the public's or even the scholar's interest in the past activities of business is to be solely judged in this manner, no one can blame businessmen for being skeptical about the value to the public of a company history.

On the other hand, some businessmen have not encouraged historians. Of 75 replies to the question of whether the company has an "explicit policy" with respect to access to noncurrent records by outsiders, 44 were in the negative. Thirty-one companies indicated that they do have a specific policy, and 25 of this group place "specific limitations on the researcher's use of particular types of records." The extreme position was stated by one company which could not "conceive" of a situation warranting access by outsiders other than government agents.

The location of decision-making power on access to noncurrent records varies from company to company, but generally it appears to be most frequently lodged in the president, secretary, or legal counsel. It would appear that most companies are little troubled by historical inquiries and

that the process of dealing with them is not usually formalized. Where there is access and an established policy, it is, in the words of one reply, "nonaccess except for good cause." Whether the cause is "good" or not is determined at the highest operational level.

• • •

Among the 83 respondents, 62 indicated that a history of their firm had been written and 53 of these histories were published. Twenty-three were written by company employees or executives, and the same number by professional historians. In 14 cases, a journalist or public relations man was the author. These histories ranged over the whole spectrum from public relations "puffs" to full-scale scholarly appraisals. As indicated earlier, the predominant motive in supporting these projects was directly related in most instances to their public or employee relations value.

A question on the problems of having a history written evoked some interesting comments that shed light on the businessman's conception of sources and historiography. Several replies cited "old-timers" as the best source of information. In the words of one such reply, "If you wait till all the old-timers are dead the job is much harder — so the moral is — don't wait too long to get started." Another respondent mentioned the problems of finding a suitable author (cited in 13 replies), researching, finding photographic material, and "clearing manuscript with top management" (the only specific mention of this problem in all of the replies). Executive or employee time consumed was mentioned in 23 comments, while 13 emphasized cost in relation to utility as an obstacle. One reply summed up the latter objection in these words: "Formal, expensive and extensive histories are probably little read or used." Another put it this way: "The corporate history if published is a public relations effort and our attitude is that we can achieve our public relations objectives through different, less arduous and expensive avenues."

Aside from such general problems, practical ones were cited. In several cases the danger of offending present or past members of the company was noted as an obstacle. In the words of one respondent it is a question "of how far a company can go in making public early documents without breaking faith with departed executives whose full effectiveness demanded a sense of permanent privacy. We have also questioned whether the lack of assurance of such permanent privacy might not tend to impair the full effectiveness of present executives." Another company put the same problem in a different light, namely, that of "Facing the decision whether the history should contain mistakes and errors of the recent past as well as management successes."

On the whole, companies who reported on their experiences in having a history written encountered "no insurmountable problems." For example, a large company that had a scholarly history done reported: "The fears on the part of some Company people proved to be completely unjustified. . . ." A large bank found "no major problems" in having its history written.

In many instances, the major problems of writing a company history centered around the dearth of records, or, where they existed, the haphazard way in which they have been accumulated. A bank reported that

its experience in having its history written led to the establishment of an archive. In the view of a manufacturing company the collection, organization, and maintenance of records required in the preparation of its history was one of the chief benefits of the project. The archivist of a large drug firm noted that business history "is a new trend in institutional advertisement which is becoming increasingly competitive," and he therefore urged more liberal support for company archives. A large oil company found the accumulation of records complicating their use and reported "Thorough indexing of historical data is the solution to this problem and we have recently assigned an employee as our historian."

• • •

The data acquired in this survey do not lend themselves to any detailed statistical analysis. However, the answers to several major questions raised in our initial article can be answered, at least in part, as a result of this survey.

We have suggested that in the last analysis it is the businessman's view of business history that determines the availability and usefulness of his records for historical purposes and his willingness to cooperate in historical projects. It seems clear from the survey that many businessmen question the value of business histories, especially in relation to the time and cost involved in a painstaking professional job. It follows that for such individuals the case for a company history must be made in terms of relatively immediate, practical results. The possible value of such histories for policy purposes or for promoting a better understanding of the role of business in American society was little noted in the replies to our questionnaire. On the other hand, a surprisingly large number of companies have felt some need for a compilation of historical material. It is also quite clear that a growing number of firms are becoming interested in systematic records management which includes retention of records for their historical interest with a view to a future company history. In this connection there was frequent mention of the difficulty of locating competent people to advise on retention of historical records and to write interesting, objective histories from them. As already noted, in several instances one of the concrete results of a company history project was the establishment of a company archive.

From this survey it appears that whatever difficulties historians may have encountered in gaining access to company records have been partly of their own making. First, it is evident that businessmen generally are not as aware of the existence of a business history discipline or its objectives and accomplishments as we would like to think. The survey confirmed the thesis of our original article that there has not been enough "shop talk" between business historians and businessmen. Secondly, historians have been reluctant to face up to some of the practical problems of records access. In the view of one major company which is unusually articulate on this subject, "business historians have shirked a responsibility to deal with these [practical problems of access and their implications] . . . and have tended to leave them to businessmen, who, after all, are not historians or historical researchers." Thirdly, historians who have been given access to records and the cooperation of company personnel

have neglected to discuss the results of their work with the company. In the words of an important railroad official: "Our experience in working with competent scholars has not been an altogether satisfactory one from the Company's standpoint. Considerable time and effort is expended on the part of company employes in satisfying the wants and making available information to scholars, but the company never hears from them or ever receives any tangible evidence that the project they were on was actually of a worthwhile nature. In short, it ought to be a two-way street."

While this survey in large measure confirmed our hypotheses about the need for better mutual understanding between businessman and historian, we are convinced that, with few exceptions, the companies answering our questionnaire would cooperate with a responsible historian who observes the ground rules suggested in our first article. Some are today actively looking for competent historians and advice on historical problems.

We cannot believe that the fact that our first article was not received with even a whimper, let alone a bang, is any true reflection of historians' interests. Businessmen, in contrast to the situation that existed one or two generations ago, are far more neutral than hostile. If historians wish to take advantage of this development, they must take far more positive action. So far too many of them have been content with mutual commiseration — and too much of that has been in private. Interest in business history is on the rise and as business historians it is up to us to make our relationship with companies and businessmen a real two-way street.

TABLE I
RESPONSES TO BUSINESS HISTORY QUESTIONNAIRE

Category of Company	Number of Companies Contacted	Number of Companies Responding with Questionnaire	Percentage of Responses
Manufacturing	87	33	37.9
Natural resource *	32	13	40.6
Service *	10	3	30.0
Transportation and Communication	38	11	28.9
Distribution	26	9	34.6
Finance	28	14	50.0
TOTAL	221	83	37.6

* Natural resource: petroleum and metals mining and manufacturing, International Paper, United Fruit, U. S. Gypsum, coal mining. Service: law, accounting, advertising.

TABLE II
RECORDS MANAGEMENT AND BUSINESS HISTORY

	TOTAL	CATEGORY					
		Manufacturing	Natural Resources	Service	Transportation and communication	Distribution	Finance
Responses	83	33	13	3	11	9	14
Number with specific policy of retaining historical records	53	25	7	2	4	5	10
Number with no specific policy on access	44	15	9	—	7	6	7
Number with history by:							
1. Historian	23	10	2	1	1	3	6
2. Journalist or Publicity Agent	14	6	2	—	2	1	3
3. Other ^a	27	10	1	2	3	4	4
Companies with at least one history ^b	62 ^b	27	6	3	6	7	13
Number of such histories published	53	22	5	3	4	7	12

^a In all but four cases "other" implies company employee or executive.

^b Discrepancy in total is due to the fact that some companies had more than one history written and that, in a very few cases a history was written by two authors with different backgrounds.

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OUT-OF-PRINT BACK ISSUES AVAILABLE

University Microfilms, Inc., 313 North First Street, Ann Arbor, Michigan, can now supply back issues and volumes of the *Review* and of the *Bulletin of the Business Historical Society*. These issues are enlarged from existing microfilm and reproduced by Xerography at a cost of from 3 cents to 5 cents per page. Address all inquiries to University Microfilms.

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NEW INDUSTRY HISTORY PUBLICATION

In January, 1960, the first issue of *The Cotton History Review* was published by the Cotton History Group. The magazine, to be published quarterly, will be devoted to the production, processing, sale, and manufacture of cotton, wool, and chemical fibers; biographical sketches of men associated with those activities; and histories of related companies and associations. Assistant Professor Richard W. Griffin of Auburn University is editor. Associate Editors include Edward C. Williamson, Thomas A. Belser, Walter K. Cheney (Art Editor), and Maxine G. Aycock (Associate Art Editor). The Advisory Editorial Board comprises the following: Jack Blinksilver (Georgia State College), Ernest M. Lander (Clemson

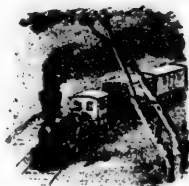
College), Malcolm C. McMillan (Auburn University), and G. G. Williamson (University of North Carolina).

The Cotton History Review is sent without charge to members of The Cotton History Group. Annual memberships are \$3.00 for individuals, \$10.00 for business firms, \$100.00 for sustaining memberships. Address correspondence to The Secretary, Cotton History Group, Auburn University, Auburn, Alabama.

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GULF SOUTHWEST MONOGRAPH AWARD

The Texas Gulf Coast Historical Association, which has been actively promoting the collection and preservation of economic records of the Gulf Southwest, has established the L. R. Bryan, Jr. Award to be given annually for a monograph manuscript judged to make an original and significant contribution to the historical literature of the Gulf Southwest since 1865. Further information may be obtained from Professor James A. Tinsley, University of Houston, Houston, Texas. The *Business History Review* congratulates the Association on the establishment of this award and solicits such announcements from other societies or associations who may have similar prizes of interest to readers of the *Review*.





BOOK REVIEWS

HISTORY OF HUMBLE OIL & REFINING COMPANY: A STUDY IN INDUSTRIAL GROWTH. By *Henrietta M. Larson and Kenneth Wiggins Porter*. New York, Harper & Brothers, 1959. Pp. xxiv + 769. \$7.50.

Reviewed by J. S. Spratt
Southern Methodist University

Looking back over a task nearly finished, the authors of this volume summarized the theme and the scope of their work as follows (p. 667):

"It is enterprise which builds and improves the world's possessions," wrote J. M. Keynes, the noted British economist. This history of Humble Oil & Refining Company shows what one group of enterprising men did in the way of such building and improving over some thirty years. The account is more, however, than a record of one company's work; it is in effect a case study of such matters of broad importance as the growth of a vital industry, the process of economic growth and development, and the nature, function, and operation of our business system.

Actually Larson and Porter have been overmodest in spelling out the areas of significant contributions in their history. It contains a mass of empirical material against which model builders and theorists can test their work, or build anew. It is rich in the how's and why's of making decisions and the problems involved in their execution; thus it might serve as a casebook for courses in management. The Humble history is an invaluable source book for the economic historian whose interests lie principally in Texas, or in the Southwest, for that matter. Also, it adds a significant chapter to the story of Standard Oil of New Jersey.

The Larson-Porter work belongs high on the list of superior entrepreneurial histories published during the past decade. It is a long book and one that cannot be skimmed. The reader who uses such an approach is likely to miss little gems, such as the Farish-Teagle interest in hunting Texas quail. One can wonder if this common enthusiasm for the sport could have been fundamental in drawing the two executives, and ultimately their companies, Humble and Jersey Standard, together. Or he might not see passages on the theory of executive qualities spelled out as they describe traits of Humble's top officials. They wrote of one (p. 417):

... he never acted on what are popularly known as hunches. He had the quality, which is characteristic of both the creative scholar and the

successful administrator, of finding in the known, even though incomplete, a basis for decision.

And then:

... his willingness to think and act independently — merits special emphasis. At the very time when much of the American oil industry had greatly reduced or nearly ceased its search for oil, he led his company in an unprecedented campaign for building up its reserves.

Finally he had:

... the ability to change his mind, even abruptly, yet without embarrassment.

Nothing short of careful reading reveals the full story of the company and its role in developing the technology of the industry, plus its significance as a leader in the conservation movement. From the empirical evidence here unfolded, certain economic theories have not fared so well. For example, the rate of interest, either in periods of prosperity or of depression, seems to have had little or no influence on decisions to invest or not to invest. These decisions appear to have been determined by other factors.

Timing has been an important contributor to the completeness of this study. In this respect Larson and Porter have been more fortunate than most writers of business history. When the Business History Foundation and Humble Oil & Refining Company in 1947 agreed to undertake a history of the company, men were living who had shared in putting Humble together in 1917 as a four-million-dollar corporation and building it into a half-billion dollar concern by 1948. They and others who had been with the company since its organization were available to the authors with their personal recollections and correspondence dealing with Humble. Many of them had passed on before publication of the history 12 years later. Even though the agreement between the Foundation and Humble stipulated that the authors should have unrestricted access to the company records, the resulting story has been enriched through a mixture of data drawn from the memories of living principals with extractions from cold records.

Larson and Porter assume that backgrounds of men offer enlightening criteria as to future performance. Hence, a delightful feature of their book is the use of the short biographical sketch to introduce persons destined to participate in policy decisions, or to assume important administrative, technical, or professional roles. However involved or intricate the narrative becomes, one is ever aware that this is a story of men (p. 671):

... men who determine objectives and set standards, who must choose between various alternatives in making decisions and plans, and who direct, co-ordinate, and control operations. Success, within the limits of circumstance, in the long run depends on the appropriateness and timeliness of decisions and on the competence with which they are carried out.

That the decisions of the men who directed Humble's affairs were more

often right than wrong is evidenced by the degree of success of the company.

Humble Oil & Refining Company was organized in 1917 by nine men who were in some fashion connected with the oil industry — all of them in Texas. They controlled numerous small holdings as individuals or in combination as partners or small corporations. The rule of capture and a complete lack of regulation made the oil industry, at the level of the small producer, one of the most chaotic, cutthroat, and competitive business ventures in the world at that time. Normally when a new field reached the stage of flush production, the small producer was virtually without bargaining power in the petroleum market.

In organizing their company, the Humble fathers were motivated by a desire to strengthen their bargaining position with the majors — to maximize their profits. To earn a profit on each year's operations remained a major objective with Humble. This created an interesting situation for observing the process of decision-making when the short-run and long-run factors came into conflict. Although Humble was organized for the primary purpose of producing oil (in quantities sufficient to attract large eastern refineries), its officers soon began to think in terms of an integrated company. Here it faced hazards imposed by the Constitution and statutes of Texas, abetted at times by an aroused populace.

As a larger producer of petroleum, the company had its headaches. Therefore, a customer whose demand for petroleum was insatiable became desirable. Jersey Standard had refineries with an almost insatiable thirst for crude oil. Its management had developed something of a phobia of running out of oil. Farish of Humble and Teagle of Jersey were quail hunters and had served on the same assignments during World War I. The result: Humble became an affiliate of Standard Oil of New Jersey. This relationship caused Humble management more than its share of legislative investigations, dissolution suits, injunctions, and anti-trust suits in Texas. The Patrons of Husbandry burned antimonopoly concepts into both constitutional and statutory laws of the state and bequeathed to Texans a heritage of suspicion — any corporation of size being *ipso facto* a monopoly. Also at the time of the union of the two corporations, Standard Oil was part of a Texan's "cuss" vocabulary — almost.

Before the affiliation date, Humble had moved in the direction of a full integrated oil company. This process was accelerated, and Humble then faced the problem of acquiring oil reserves for both its own and Jersey refineries. The result: Humble management built their company into the largest single holder of oil reserves in the nation.

As officers of an affiliated company, Humble's management retained a remarkable degree of independence. Larson and Porter present numerous incidents of divergent views and policies. As often as not Humble's position prevailed. Soon Humble officials began to move onto the Jersey board and executive committee and into its presidency. One wonders which company controlled which.

Organizationally the first four chapters of the book are devoted to background, the organization of Humble, and its affiliation with Jersey in the fall of 1919. The remainder of the study is developed by decades —

the 1920's, 1930's, and 1940's. The bulk of the text covers the 1920's and 1930's with less than one-sixth devoted to the 1940's. This arrangement causes some repetition which was probably deliberate in the interest of keeping the whole story connected.

Administrative and operational problems of the 1920's are the themes of Chapters 5 through 13. This was a decade of rapid technological development within the oil industry and of extensive growth for Humble — years that tried the souls of its executives. The challenge of a changing technology Humble met by bringing professional and technically trained men into the official family to complement the practical experience of its founders. Flexibility early became an established policy of Humble management. To these men the obstreperous twins — rule of capture and free competition in the discovery and development of oil fields — were the most obdurate problems of the 1920's. The rotation of flush oil fields quickly depleted continued as a nightmare of economic waste involving labor, capital, and raw material, to say nothing of creating havoc in the market place. Many people approved this kind of operation. Humble did not, and early in its corporate existence, it became a strong advocate of controlled development and production — even by government if private controls could not be maintained. Humble's influence was largely responsible for bringing voluntary proration to the Great Yates field of West Texas in the late 1920's.

The depression alone should have created enough managerial headaches for one decade, but the discovery well in what proved to be the greatest oil field ever developed in the United States — East Texas, a six-billion-barrel pool — ushered in the 1930's (Chapters 14-21). Multiple holdings in fee simple, thousands as small as city lots scattered throughout this vast field and each an exception to the Texas Railroad Commission's well spacing Rule 37, soon released from thousands of wells a flood of oil that dropped the price of crude to a reported 2 cents per barrel for spot sales. Compared to this, agricultural commodity prices during the depression remained relatively high. Proration became a major political issue in Texas. Humble had its hands full of economic problems and legal actions brought against it. The governor attempted to control the East Texas Field by martial law. The state legislature finally enacted legislation designed to control production and prevent the waste of oil and gas. Larson and Porter's Chapter (18) which describes this controversy stemming from East Texas is one of the best concise presentations that has been written.

The East Texas field may be looked on as a laboratory for testing the courage and ability of oil company management. Because of the chaos created by the flood of oil from this area, virtually every major oil company brought leasing operations to a halt throughout the state. Humble proved to be the exception. This, I think, is the finest example in the book demonstrating a quality that sets the superior executive apart as such. As a Texan would say, "Humble picked up valuable leases dirt cheap." In the long run this policy paid off in handsome returns. Humble, at the close of the depression decade, held oil reserves aggregating 2½ billion barrels, 20 per cent of all the reserves in the area of its operations and approximately 14 per cent of the reserves of the United States.

By the 1940's Humble's pattern of operations had been pretty well standardized, including its policy of maintaining a flexible attitude toward its problems. Hence the Chapters covering this period (22-25) deal mainly with the matter of meeting war demands in crude production, high octane gasoline, rubber and other needed products. Gas had been relatively unimportant to Humble prior to the end of World War II save as a source of power for the recovery of crude oil. With the booming increase in the demand for natural gas, Humble had to reorient its policies to include natural gas. There was also the problem of readjusting its organization for peacetime operations and planning for the growing post-war consumer demands becoming ever more diversified as to products from petroleum.

In their final chapter the authors make an appraisal of the performance of the company through three decades. The tabulated statistical data should prove sufficient to satisfy most of the ones who will make use of this study. Eleven statistical tables may be found in the appendices while 14 tables and 18 maps, drawings, and charts are scattered through the text.

During the 1920's and 1930's some phase of the oil industry was a major issue in every political campaign and every session of the state legislature. There is little discussion of the political issues. Soon after the affiliation with Jersey, Humble officials learned that it would be fatal for them to espouse an issue openly. Hence public pronouncements became infrequent. But the authors' failure to develop this aspect fully detracts little from the major theme — decisions and operations.

As an undergraduate in Texas, I heard this story on Albert Bushnell Hart. Any time, so it seemed, the old professor read or heard of a worthwhile book, he immediately acquired a copy, tore it apart and filed it among his notes for future writings either by himself or others. I have two copies of the volume under review. One will remain on my library shelf as a reference volume, the other will be torn apart page by page and filed by topics among my notes from which volumes three and four of my economic history of Texas will be written. The history of Humble is a worthy study.

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OIL ON STREAM! A HISTORY OF INTERSTATE OIL PIPE LINE COMPANY, 1909-1959. By John L. Loos. Baton Rouge, Louisiana State University Press, 1959. Pp. xvi + 411. \$6.00.

Reviewed by George S. Wolbert, Jr.
Attorney, Shell Oil Company

During the first decade of this century the Mid-Continent region came into prominence as a source of oil production. Pipelines were constructed from this area to refining centers near Kansas City and Chicago and, later, to the Texas Gulf Coast. In 1909 the Standard Oil Company (N.J.) was faced with the problem of providing an economical outlet for its great and increasing Mid-Continent production. Its pipeline to Sugar Creek, Missouri, thence into Whiting, Indiana, was noncompetitive with the

lines running to the Gulf Coast. Legal difficulties with the State of Texas ruled out location there; this led to a decision to locate a refinery at Baton Rouge, Louisiana, and to connect it to the Mid-Continent fields by constructing a new pipeline from Baton Rouge to northeastern Oklahoma.

We are indebted to Dr. Loos for an interesting account of the birth, growing pains, and maturity of this pipeline — known today as Interstate Oil Pipe Line Company. Painstaking research and an easy style of writing transport the reader from a hot June afternoon in 1909, marking the arrival in Shreveport of the first pipe-laying crew from Pennsylvania, to a September day in 1958 when company engineers satisfactorily field-tested a portable caisson in the repair of a 12-inch pipeline 11 feet below the surface of Barataria Bay.

Loos has traced for us the evolution of Interstate's corporate structure. Students of pipeline regulation will recognize the purpose behind separate incorporation of the Oklahoma Pipe Line Company in Oklahoma — transfer of title at the Arkansas border to the Prairie Oil and Gas Company (even at the expense of constructing a bogus pumping station, called the McCurtain station) — and another transfer of title to the Standard Oil Company of Louisiana at the Ida, Louisiana, station. This arrangement lost its utility when the *Pipe Line Cases* were decided by the Supreme Court in 1914. Other corporate arrangements were made in anticipation of certain state regulation: both Oklahoma and Louisiana kept the parent Jersey Company lawyers busy. In this regard the feud between the late Huey P. Long and the Standard Oil Company is recounted in an interesting manner.

Some readers profess a greater interest in people than in corporate structure. They will not be disappointed in this book. Personnel has been given a vital place in the account.

The author has provided a series of helpful illustrations and photographs, listed on pages ix-xi. He also has pampered the taste of "book-thumpers" by inserting a series of schematic system maps which graphically portray the expansion and subsequent consolidation of the pipeline system.

The history of Interstate's evolution is also a factual record of development in several phases of pipelining in general. To cite a few examples: In the construction end of the business we are shown the progress from horse-drawn wagon-stringing and hand-tonging of thick-walled screw pipe through mechanical pipe-laying machines and acetylene welding, to "side-boom cats" and electric welding. Corrosion prevention is traced from concrete jackets and asphalt coating to cathodic protection and yard-coated pipe. We read of steam engines driving double-acting piston-power pumps giving way to centrifugal pumps powered by electrical motors. Even the ancient art of line walking which once took a man five days to complete the 53 miles from Wood Station, Oklahoma, to DeQueen, Arkansas, wearing out a pair of heavy shoes per trip (p. 66) and fighting off wildcats by throwing pliers at them (p. 68), must yield to patrol planes covering the distance in a fraction of the time.

In common with most experience, Interstate encountered some frustrating events. One of these was the 1927 Mississippi Flood, described in

Chapter V. Another was the Elkins Act Consent Decree, discussed in Chapter XII.

Of particular interest to business historians and serious students of the industry are the frequent glimpses into the corporate mind, revealing the inner bases underlying management decisions. This is a very interesting and illuminating aspect of the history. It was made possible by the scrupulous observance by Interstate of the conditions under which the author undertook to do the history, i.e., complete access to records and personnel, coupled with academic freedom to use the gathered material in whatever way the author felt proper to provide a balanced study consistent with the canon of historical scholarship.

Another thing in this book that is especially praiseworthy is the presence of a "Bibliographical Note" which details the author's sources. This is, of course, supplemental to the extensive footnoting, and is not intended to replace the citations. At this point, I must register my sole discordant note — and this is not directed against the author, for he is only following faithfully the pattern of his predecessors in the field and the economics of his publisher. Possibly I am but crying in the wilderness, but as an inveterate footnote reader I hate (with a purple passion) to interrupt perusal of an interesting text to fumble through 31 pages of footnotes searching for the pertinent one (a job made more difficult by the practice of renumbering each chapter's footnotes). Is it too much to ask the historian to borrow a page from the law reviewers and to put footnotes in close proximity with the text they support?

Having cleared the air, there is nothing to add except to extend a hearty welcome to this worthy addition to the ever-growing body of scholarly business histories. Loos has joined the ranks of authors such as the Hidys, Giddens, Gibb, Knowlton, Porter, Larson, Williamson, Daum, Johnson, and Beaton, whose works have relegated Ida Tarbell to her rightful place as a subject of oil industry history rather than its source.

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LUMBERMAN FROM FLINT: THE MICHIGAN CAREER OF HENRY H. CRAPO, 1855-1869. By *Martin Deming Lewis*. Detroit, Wayne State University Press, 1958. Pp. xi + 289. Illustrations. \$5.00.

Reviewed by James W. Silver
University of Mississippi

Fourteen years constitute a short enough period for a full-blown career, but for Henry H. Crapo, starting from scratch and New Bedford after he had turned the half-century mark, there was time for a couple of fascinating lives. Having been saddled with some 12,000 acres of lake state forest lands as the result of a speculation, the Massachusetts small town entrepreneur naively proposed to turn virgin white pine timber into lumber at a substantial profit. This despite a previous background of school teaching, real estate, horticulture, insurance, publishing, and collecting taxes. Though he suspected that his wilderness venture entailed considerable risk, Crapo could not have even faintly anticipated his prospective tooth-and-nail scrap with bankruptcy, depression, unstable

western currency, manpower shortages, caprices of weather, fire, and the market, and the ever-changing technical problems in logging, driving, manufacturing, transporting, and selling which awaited him in Michigan's Saginaw River Valley. His herculean, one-man, self-imposed assignment on the way to accomplishment, Crapo was almost inadvertently drawn into another fabulous career as mayor of Flint, state senator, and for two terms Republican governor of his adopted state.

The volume at hand is concerned mainly with Crapo's Alger-like business success, a truly old-fashioned, free enterprise story in which the hero works 14 hours a day, supervises every detail, learns new jobs overnight, breaks both rules and competitors, drives his labor unmercifully, and for years juggles his finances like a wizard. Though primarily a lumber manufacturer, Crapo spread out into widespread retailing, opened general stores, sank salt mines (his only failure), ran boarding houses, operated two farms scientifically, and built and directed a railroad with extraordinary cunning. Certain of his "irreproachable moral character . . . industry and perseverance," Crapo might as well have never left home when it came to some of the drearier sides of his brand of Puritanism — according to his code, any worker "guilty of intoxication, or other immoral act" was to be dismissed on the spot, and one fallen soul was actually fired when the boss discovered that he not only drank but was known to have attended "dances and oyster suppers."

Although the evidence comes mainly from the writings of the budding statesman, it does seem that as a businessman legislator and administrator (elected governor just six years after he gained the right to vote) Crapo was enormously effective in fighting against the misuses of public credit and for public education. He also got the legislature to raise passenger rail rates, writing with apparent glee, "It will be *clear* gain to our own net earnings." An ardent Unionist and consistent supporter of Lincoln, he campaigned for a vigorous prosecution of the Civil War, ever higher tariff schedules, and the Radical program of Reconstruction. It may be that ignorance or his literal morality can be blamed in part for his immature and, if informed, selfish interpretations of southern problems, though it appears to be more difficult to excuse his indulgent biographer on the same score.

As a pioneering venture in the writing of family-sized entrepreneurial history and as a vivid portrayal of the rising business class in the middle war years of the nineteenth century, *Lumberman from Flint* is a handsome achievement both for the author and the Wayne State University Press.

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MERGER MOVEMENTS IN AMERICAN INDUSTRY, 1895-1956.
By Ralph L. Nelson. National Bureau of Economic Research, Number 66, General Series, Princeton, 1959. Pp. xxi + 177. \$5.00.

Reviewed by Arthur M. Johnson
Harvard Graduate School of Business Administration

In this volume the turn-of-the-century merger movement receives a new statistical appraisal and is related to succeeding waves of merger activity extending down to the recent past. Concentrating on manufactur-

ing and mining industries and employing firm disappearances by merger and merger capitalizations as his basic yardsticks, the author has produced an interesting and significant study. In the process he throws new light on traditional explanations for the mergers at the turn of the century and adds a new background to the familiar merger series available for the period since 1919.

On virtually all counts the first great wave of mergers, covering the years 1895-1904 and reaching its peak in the years 1898-1902, was the most important in our industrial history. Professor Nelson shows that in terms of net disappearances of firms and in adjusted capitalization of mergers this wave of activity was at least 20 per cent greater than earlier lists have suggested. He then systematically analyzes such accepted explanations of this activity as: the retardation of industrial growth, the growth of interregional transportation, and the development of a significant capital market. He also devotes some attention to the desire for market control and economies of scale, though they defy quantification.

While the author is careful not to overstate any of his conclusions, he decides quite definitely that the development of the capital market and its institutions was the most important of the causal factors in the first merger wave. In Nelson's words: "The high correlation between merger activity and stock prices suggests that much of the merger activity of the period had its origin in, or was influenced by, the stock market. Further examination indicated that capital market factors overrode the level of industrial activity in influencing merger activity." (P. 105.) While the author finds that the expansion of railroad transportation and a decline in the relative cost of transportation were important phenomena of the period, he rejects their impact as a key explanation of the merger movement at the turn of the century. (P. 88.) However, this conclusion is a justifiably qualified one.

To compare merger activity and business cycles, Professor Nelson uses his own series for the period to 1920 and those of Willard Thorp and the Federal Trade Commission for the later period. In 11 of 12 clear cycles in merger activity, he found "a definite timing relationship to fluctuations in general business activity (reference cycles)." (P. 7.) Furthermore, the timing of turning points in merger activity again pointed to the prime importance of the state of the capital market. In periods of expansion, the peak in stock trading was reached first, followed in order by merger activity, stock prices, business incorporations, the reference cycle, and industrial production. In contractions, stock prices reached a trough first, followed by stock trading, business incorporations, merger activity, industrial production, and the reference cycle. By statistical correlation, the state of the capital market as reflected in stock price changes appeared to influence merger activity more immediately than underlying conditions of industrial production.

The author concedes virtually no impact to the antitrust laws in affecting merger activity. In the text he devotes only one paragraph to this subject. In a tantalizingly brief Appendix he compares British and American merger experience and generally finds corroboration for his earlier conclusions, including that on antitrust.

The heart of this work is the statistical material, and the author's

ingenuity in handling it is exciting. Nevertheless, he is the prisoner of his method. Causality cannot be adequately determined by a quantitative approach which must make rigid assumptions and work with questionable data. As Professor Nelson recognizes, multiple causation is involved in merger movements. Although he makes a significant contribution by his measurement of a limited number of factors, others will not yield to his method and he leaves plenty of room for further examination of a most complicated phenomenon. As far as the quantitative approach is concerned, however, this effort has every earmark of being definitive for the period it covers.

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LAW AND LOCOMOTIVES, THE IMPACT OF THE RAILROAD ON WISCONSIN LAW IN THE NINETEENTH CENTURY. By Robert S. Hunt. Madison, *The State Historical Society of Wisconsin*, 1958. Pp. xiv + 292. \$6.50.

Reviewed by Arthur M. Johnson
Harvard Graduate School of Business Administration

"Public policy" should be a shorthand term for the results of the pragmatic interaction of the various arms of government and the groups with whom they deal. Too frequently this view of public policy is ignored by scholars. Economists have often disembodied the concept in subjecting various areas of the economy to analysis; political scientists have treated it largely in terms of the political process alone; many historians have seen it as revealed primarily in government documents. Furthermore, most studies of public policy in the United States have been confined to the national level. It is therefore refreshing to find a student of the law recognizing that statutes in themselves are merely formal expressions of public policy, reflecting one outcome of interest-group struggle and depending on application and interpretation to give them meaning and significance. When Robert Hunt chose to analyze this process in terms of the impact of an innovation in transportation and a new form of business organization on the law of an agricultural state, he was clearly undertaking a new and difficult task. He has acquitted himself well.

The shortage of capital for railroad construction posed problems of public versus private enterprise in many a frontier state during the first half of the nineteenth century. Wisconsin had seen the disastrous results of efforts in other states to build and operate internal improvements with public credit, and the lesson was incorporated in its state constitution which prohibited direct state aid to railroads. As in other states, therefore, federal land-grant aid was sought and obtained to aid private construction of a rail network. A familiar pattern of abuses in connection with the award of this land then developed, in this instance centering on the activities of Byron Kilbourn and his manipulation of venal officials in all three branches of the state government. When the unsavory results became obvious, a legislative investigation was made, the chief figures in the scandal were lightly chastised, and some ineffective corrective legislation followed.

The nature and sequence of events in this episode are unexceptional, but the author subjects them to an exceptionally able analysis. He does not seek to pass a hindsight judgment on the actions of either railroad promoters or the state officials who aided them in return for a share of the spoils. Instead, he attempts to analyze specific problem areas which invited abuses of fiduciary relationships and public office.

Neither Wisconsin's economy nor its legal institutions were prepared for the problems that railroads brought in their wake. From an economic standpoint, the pressing need for private capital and entrepreneurship plus the lack of popular knowledge about the economics and intricacies of railroad finance and operation made mistakes in the formulation of public policy and abuses in its execution inevitable. From a legal standpoint, Wisconsin was even more unprepared for the onslaught of the first manifestation of big business represented by the railroad. For example, common law concepts developed in an agricultural society still governed thinking about corporations, and there was no effective protection for the small investor nor restraints on the discretionary power of railroad officers.

The author shows that the courts were better placed and generally more perceptive than either the legislative or executive branch in their handling of the problems raised by railroad development. Reconciliation of conflicting economic interests therefore proceeded in large measure through the judicial process. One example will illustrate the importance of this device. Because the state supreme court explicitly recognized the state's need for capital (whose flow depended in part on legal protection), it upheld the validity of eastern investors' claims on farmlands mortgaged to defaulting railroads. The court successfully maintained this position and its independence, while the legislature and a succession of governors bent to the political winds generated by outraged farm-mortgagors. The results did not satisfy either side of the mortgage controversy. On the other hand, the court met the immediate problem and vindicated the prestige of Wisconsin's legal institutions. Given the situation, little more could have been expected.

While Mr. Hunt feels that the judiciary played a constructive role in adjusting private and public interests, he recognizes its lack of expertise in dealing with railroad problems. A case in point is the Potter Law of 1874, poorly drawn but a first step toward state regulation of railroad rates. In his landmark decision upholding this law, Chief Justice Edward G. Ryan of Wisconsin's highest tribunal came out firmly for the superiority of the state's power over that of a private corporation. While the principle was important, its implementation in the regulatory field was beyond the capabilities of existing government machinery. What was needed, Mr. Hunt points out, was "an agency clothed with both legislative and judicial powers and functions." However, such a sophisticated solution was not recognized at the time. In fact the Potter Law was soon replaced by a better drafted but less effective statute. For the remainder of the century, Wisconsin railroads had little to fear from state authority.

Although Mr. Hunt deals with only one state, he puts his finger on key problems that troubled the entire nation as big business gained momentum. He recognizes, for example, the ambivalence of popular

attitudes toward private economic power and the fact that railroads, which had special economic characteristics, were expected to compete even when it was uneconomic. He is acutely conscious of the problems of establishing the sanctions and initiative in law enforcement that give law its practical effect. Finally, Mr. Hunt recognizes that the whole story of public policy cannot be told until the records of businessmen are examined.

Although the substantive material of this book is tied to law and the lawyer's touch is recognizable, the author makes a significant contribution to the study of public-policy formation in a limited historical, geographical, and economic context. One only regrets that he did not add to the impact by placing this study in the framework of similar problems and experimentation elsewhere in the nation and the economy.

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THE BRITISH TINPLATE INDUSTRY: A HISTORY. By Walter E. Minchinton. Oxford, England, Oxford University Press, 1957. Pp. xiv + 286. \$5.60.

Reviewed by Barry E. Supple
Harvard University

Mr. Minchinton's book was among the first examples of what is obviously a new and fruitful interest in English industrial history — an interest which has subsequently given us studies of rubber, paper-making and brewing. *The British Tinplate Industry* traces, with scholarship and analytical insight, the evolution of an economic activity which, although representative of many business aspects of modern British industrialism, displayed some unique characteristics.

The plating of iron sheets with tin, and their consequent preservation against rusting or tarnishing, was a fourteenth-century innovation and remained for many generations an effective monopoly of German manufacturers. Persistent attempts to establish the industry by both private and public entrepreneurs in other European countries were frustrated sufficiently often to demonstrate conclusively the obdurate scarcity and geographical immobility of manual skill. Only in the eighteenth century can one speak of a British tinplate industry. By 1800 Great Britain was the most important producer — a position which nineteenth-century industrial growth was to render more secure. Tinplate found a multitude of uses as western standards of living rose; particularly with the growing practice of canning foods and, ultimately, petroleum products. In Britain, the manufacture of tinplate was heavily concentrated in South Wales, where it formed an important part of the crucial iron and steel industry and therefore of Britain's industrial strength. The principal blow to the industry came not by economic but by political action: with the McKinley Tariff of 1890, America's puny infant industry was to grow into a competitive giant; by 1912 U. S. production exceeded Britain's; and in 1913 the American duty could be safely lowered. Although the British industry retained its effective dominance of non-American markets for two decades after 1890, by the eve of the First World War other foreign competition began apace: "The era of high returns and easy sales was past" (p. 71), and tinplate manufacture, like some other British staples, entered a long

period of economic difficulty which could only be compounded by an obstinate adherence to traditional structures and conservative techniques. It is a sad, if salutary, story whose *dénouement* is rosier than interwar history would lead us to expect.

The business history of the tinplate industry is made the more interesting by the fact that, viewed from the standpoint of other metal manufactures, it was not until relatively recently a heavy user of fixed capital. In 1893, for example, some 23 per cent of the cost of tinplate went to pay labor, and about 72 per cent for raw materials. It was only in the twentieth century, with the introduction of the hot strip mill and the cold reduction process, that there occurred the first major technological innovation in tinplate manufacture since the late seventeenth century: "not only the process of tinplate manufacture, but also the whole tinplate industry was completely revolutionized." (P. 191.) Size, great economies, integration, and capital-intensity swept the industry into a new business environment; units of production cost millions rather than scores of thousands of pounds to construct. After manifold difficulties, and only when the industry had undergone a significant merger movement, Britain secured its first strip mill in 1938: the days of the pack mill were numbered.

The British Tinplate Industry is a much richer study than the foregoing survey suggests. Although Mr. Minchinton was deprived by the ravages of time of the abundant business records which are essential to a comprehensive entrepreneurial picture, he was nevertheless able to trace and analyze a significant pattern of business enterprise. One can detect in the rise, stagnation, and first glimmerings of a renaissance in tinplate manufacture, business attitudes and modes of organization which are the warp and woof of British industrial evolution. Industrial history, one ventures to believe, is in the process of making a great contribution to economic history by its alignment with the study of business; this book has a symbolic importance as well as a concrete value.

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CATTLE KINGDOM IN THE OHIO VALLEY, 1783-1860. By Paul C. Henlein. Lexington, University of Kentucky Press, 1959. Pp. vii + 198. \$6.50.

Reviewed by Gene M. Gressley
University of Wyoming

In the past two decades we have had an outpouring of tomes dealing with the Western Range Cattle Industry, particularly on the histrionic and less significant phases. Even with this deluge of literature, just a casual reference is necessary to realize we have as yet only a sciolistic awareness of many topics of the cattle industry. There is no adequate treatise on commission houses; capital investment and transfer from eastern financial houses to the West is largely unrevealed; the interaction of the western range cattleman and the cattle feeder remains in the realm of limbo; the managerial and entrepreneurial activities of the cattlemen are still for the most part uninvestigated; the enclosure movement, with the exception of the dramatic eruptions between cattleman, sheepman or

homesteader, remains an enigma; the eastern antecedents of the cattle industry have in part been shunned with a skill born of provincialism.

It is with the announced intention of filling in this last hiatus that we have the present book. Yet in spite of the wide gaps in our understanding of the cattle industry in the East and Midwest, it would be a gross misrepresentation to say Henlein has provided the initial contribution to a virgin subject. Helen Cavanagh, Paul Gates, Edward N. Wentworth and Rudolph Clemen, as Henlein's footnotes amply testify, have acutely circumscribed the amount of originality left for any researcher. *Cattle Kingdom in the Ohio Valley* is a supplement rather than a replacement or a revision of existing literature.

The chronological period as well as the geographical seems to have been arbitrarily limited. Indeed, the author gives every evidence of being intensely devoted to staying within the proscribed areas of the Bluegrass Country of Kentucky, the Miami and Scioto valleys of Ohio, the country of the Wabash Valley of Indiana and the Sangamon region of Illinois.

Initial attention is focused on the establishment of the cattle industry in these areas of the Ohio valley, the breeding practices of the cattlemen and a rapid over-all survey of the cattle kingdom in the 1834-1860 period. The importation of stock from Great Britain, with the goal of improvement of breed, stands as a bas-relief in significance to the rest of the work. Cattle drives, marketing problems, the evolution of the packing industry with an appended chapter on the westward movement of the cattle industry complete this dissertation.

The merits as well as the liabilities of the book will not be obscure to most readers. There has been uncovered the heretofore neglected papers of cattle kings (cattlemen reaching any degree of affluence soon assumed, or were given, the appellation of "king" or "baron." J. Frank Dobie has commented in his *Life and Literature of the Southwest*, "Nobody ever heard a cowman call himself or another cowman a king," p. 97. However, the records of the Wyoming Stock Growers Association have a number of references where contemporary cattlemen referred to themselves as well as others as "kings"). Strauder Goff, Brutus Clay and Felix Renick have been uncovered and used by the author. The account of their activities is valuable as offering amplification to Gates and Cavanagh's findings for the ante-bellum era. It is quite evident, though, that the manuscript sources were either not rich enough or not fully utilized to provide a complete survey of the business activities of Renick, Clay or Goff. We are given a recitation on their breeding policies, importation of blooded stock and cattle drives, but nowhere is presented an account of the over-all operations. The dependence on these sources, in view of the dearth of other manuscript material, is understandable, but perhaps the narrative could have been buttressed with attention to a wider number of other cattlemen, such as Robert Constant, Charles M. Culbertson and John B. Hunter.

Also, in view of the scarcity of manuscript material and the geographical limitation, an extension of the time period into the post-Civil War might have been accomplished with profit.

The inadequacy of the bibliography is partially compensated by the

copious footnotes listed at the bottom of each page. A map of Henlein's "Ohio Valley" would have been useful.

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GOLD VS. GRAIN: THE HYDRAULIC MINING CONTROVERSY IN CALIFORNIA'S SACRAMENTO VALLEY. By Robert L. Kelley. Glendale, Arthur H. Clark Company, 1959. Pp. 327. \$9.50.

Reviewed by Clark C. Spence
The Pennsylvania State University

"What is recounted in these pages," begins the author in the preface of this excellent book, "is the history of the first successful attempts in modern American history to use the concept of general welfare to limit free capitalism." More specifically this is the story of the bitter California struggle that raged during the 1870's and 1880's between hydraulic miners dumping debris into the Sacramento River or its tributaries and downstream farmers attempting to prevent damage to their property.

Throughout the nine chapters Robert Kelley handles the controversy well, though there is little doubt that the valley farmers have his sympathy. Aided by such river towns as Marysville and Yuba City, the farmers aired their complaints in open meetings, repeatedly urged Congress and the state legislature to outlaw the dumping of mining tailings on behalf of the public interest, and, when these methods seemed fruitless, resorted to legal action. When powerful mine owners formed the Hydraulic Miners Association in 1878, valley farmers organized as a counterweight the Anti-Debris Association of the Sacramento Valley and later the State Anti-Debris Society. Under pressure from both sides, the legislature moved cautiously, rejecting bills to prohibit dumping, but finally sanctioning a compromise, the Drainage Act of 1880, which provided for state and local cooperation in the financing and building of dams and levees to limit debris damage.

But the Drainage Act satisfied few, least of all the farmers who were convinced that nothing short of the abolition of hydraulic mining could provide a solution to their problem. Efforts to repeal the law deadlocked the legislature in 1881 and created political chaos before the courts stepped in to declare the act unconstitutional. After this debacle, both parties sought to keep their skirts clear. Efforts to form a new organization, the Anti-Debris Party, were abandoned in 1882 when the Grangers and the Anti-Monopolists refused to cooperate.

Meanwhile lawsuits were stepped up against the mine operators and in June, 1882, the farmers won a partial victory when the California courts, although refusing to shut down the mines, insisted that hydraulic miners must build restraining works to keep major debris from the streams. Full victory came two years later, with the decision in *Woodruff vs. North Bloomfield, et al.*, which for all practical purposes spelled the end of hydraulic mining in California. In handing down this opinion prohibiting the dumping of tailings, Judge Lorenzo Sawyer demonstrated not only that the public welfare was at stake, but also that agriculture had become more important than hydraulic mining in the Golden State.

Now the controversy entered upon new phases: clandestine efforts

of small mine owners to continue work despite court injunctions and the spy activities of Anti-Debris Association agents; partially successful attempts to conduct hydraulic operations within the limits imposed by the Sawyer decision without using the streams as a dumping ground; endeavors (mostly vain until the twentieth century) to promote the reclamation of the Sacramento through state and federal aid.

Meanwhile, as the mines closed, public opinion was shifting. California farmers, apart from those of the valley, found in the mine owners potential allies in their desire for inflation and more money in circulation to combat low farm prices. These groups combined with those seeking reclamation to petition Congress in 1887 for federal aid and for a revival of hydraulic mining and were encouraged when Army Engineers ultimately reported that mining could be reopened without harm to the rivers if miners would build restraining dams and if the government would construct wing dams to constrict the streams and force them to scour their own beds. Then came the passage of the Caminetti Bill in 1893, by which Congress placed control of hydraulic mining in the hands of a California Debris Commission with broad powers to license hydraulic operations under severe restrictions. Thus, says Kelley, "River management in California, with its complex of dams, canals, and government commissions, begins with the Caminetti Act, the end product of the mining debris struggle." (P. 284.) Even so, hydraulic mining was the real casualty: falling gold prices, rising operating costs, and little federal aid until the 1930's prevented any genuine resuscitation.

Drawing heavily on local newspapers, the mining press, and state and national government documents, Professor Kelley has produced a sound, well-written book. An index and a folding map of the Sacramento Valley have been included, along with reproductions of ten photographs, some perhaps a bit repetitious. If the format is pleasing and the bibliography extensive, random checking of a few footnote citations indicates careless documentation or more probably transcription. The Skidmore quotation on page 45 (note 30), for example, is cited as coming from Raymond's *Statistics* (1872), page 58, but actually is found in the source on pages 62 and 63. This and other minor complaints of the same nature are relatively unimportant, however, and detract little from the over-all impression, which is definitely good. This reviewer wonders to what extent the mining controversy was unique to California and would like to see more of the struggle set in national as well as the local setting, but is aware that these would constitute another story. *Gold vs. Grain* will stand on its own merit.

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EARLY HISTORY OF THE LONG ISLAND RAILROAD 1834-1900.
By Mildred H. Smith. Uniondale, Long Island, Salisbury Printers, 1959.
Pp. 63. \$3.00.

Reviewed by Charles J. Kennedy
University of Nebraska

The Long Island Railroad, independently operated for 66 years before the Pennsylvania Railroad leased it in 1900, generally was inefficiently managed to 1880 and perhaps even later. The author does not show or

even attempt to measure this by methods employed by business analysts, although enough public records of the company are available to make a useful analysis.

In her brief account the author does present an interesting story, however. The promoters built a 95-mile line through the central, and generally uninhabited, part of the island to form a link in a rail-water passenger route between New York and Boston, ignoring local traffic that could have been developed by going through some of the coastal towns and terminating at Sag Harbor. Only four years later (1848), an all-rail route was completed along the northern shore of Long Island Sound and the Long Island Railroad immediately lost much traffic and soon went into receivership. Subsequent efforts to stimulate agriculture and dairying were unrewarding. The stubborn, disruptive policies of its president during 1863-1875 encouraged the construction of two rival lines. The three lines, totaling 326 miles, were combined and came under Drexel and Morgan control in the late 1870's. A few years later, Austin Corbin commenced 16 years of management and promotion that attracted much attention. His record on the Philadelphia & Reading Railroad had been impressive and the Morgan interests were behind him. Had it not been for his untimely death, perhaps he could have realized his dream of linking Long Island with Europe by establishing a port of entry for transatlantic ships at the eastern end of Long Island and using the railroad to reduce the New York to England schedule by four to twelve hours. However, Congress would not make the necessary harbor improvements or establish a free port, which Corbin considered essential. Within a few years after his death the Pennsylvania Railroad bought majority control of the Long Island Railroad and used the property to expand terminal facilities. It was a fortunate conclusion to the independent operation of a poorly located and frequently poorly managed line.

There is little in this account, however, to tell the reader how poorly or how well the officials operated. The sources are all secondary; no use has been made of company records, annual reports, or even Poor's Manuals. The attempt to relate the story to economic and social developments is only fairly successful. The history of the Long Island Railroad is the story of a business firm that cannot be fully appreciated until its trials and record are analyzed as a business operation. With such treatment the author could have given us not only an interesting but an instructive history. The reviewer would hazard a guess that the Long Island Railroad was weak more from failure of management than from geography or economic environment, but there is nothing in this treatise to test that hypothesis. There are enough records to measure both efficiency of operations and financial strength to a sufficient degree to justify a rewriting of the history of this railroad.

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BLUEGRASS CRAFTSMAN: BEING THE REMINISCENCES OF EBENEZER HIRAM STEDMAN, PAPERMAKER, 1808-1885. Edited by Frances L. S. Dugan and Jacqueline P. Bull. Lexington, University of Kentucky Press, 1959. Pp. vii + 226. \$5.00.

Reviewed by Steven J. Shaw
University of South Carolina

Ebenezer Hiram Stedman, whose reminiscences were written in a series of letters to his daughter, gives the reader a realistic description of the economic, physical and social environment in which nineteenth-century American craftsmen labored in order to develop the small industries which were the precursors of our modern industrial giants.

The second manuscript, included as an appendix to this volume, was based largely on hearsay but appears to be surprisingly accurate and to offer valuable source material for the economic history of Kentucky.

As one reads the reminiscences, one cannot help but be impressed with the fact that the Stedman brothers established and operated their business successfully with but little use of money. Stedman borrowed from a bank but once during the 30-year life span of his business operations. Finished paper was exchanged for clothing, food, and other materials. These goods in turn were given to hired hands in exchange for their labor.

As was commonly the case, marketing was never a problem for the papermakers. In his reminiscences Stedman disposes of distribution with the statement that "we could not supply the demand for printing paper."

Stedman's sketches of rivermen, hunters, pioneer ancestors, trappers, craftsmen, rural doctors, weddings, court trials and other contents of the period give us a glimpse of the social setting in which the business pioneer of the early nineteenth century labored.

Stedman's most original contribution is his lively firsthand account of the business and financial dealings of an ambitious craftsman without capital in the ante-bellum Bluegrass region. His incredible apprenticeship as a "lay boy," his expeditions, his stoicism in the face of disastrous fires and floods, his determination to reclaim the Stedmantown property, his zeal to manufacture paper day and night in order to buy the trappings of aristocracy — these give an insight into the life of a class of Central Kentuckians largely overlooked by traditional reporters.

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THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES. By R. Carlyle Buley. New York, Appleton-Century-Crofts, Inc., 1959. Pp. xviii + 262. \$5.00.

Reviewed by Milton J. Nadworny
University of Vermont

This book relates a story of the first hundred years of Equitable's history, which began in 1859. Since the company wished to meet the anniversary deadline for the book's appearance, Dr. Buley tells us in his "Foreword" that this volume merely "sketches in broad outline the main events in the history of the first hundred years." He promises a larger history later with "more detail and thorough documentation," which

should be most welcome, for a firm which has been in existence for more than a century, and has retained a position of pre-eminence and leadership in its field for most of that time, deserves careful study and analysis.

The present volume consists very largely of the identification of people, dates, and places which played some role, large or small, in the development of the company. The author, in turn, has made little attempt to give his reader any insights into the operations and activities of Equitable. For the first fifty years of its life, the company was dominated by its founder, Henry B. Hyde, who attracted a great deal of publicity, as well as notoriety, for himself and his company. His burning ambition was to build the largest insurance company in the world, and he did. This is no mean feat, but we get no adequate picture of the means by which he accomplished it, other than indications of aggressive selling, agents' high commission rates, and the kinds of life insurance policies that the company offered. It would be interesting to know more about the internal structure of the company, where the markets were for these policies, and, essentially, what made people buy Equitable's offerings instead of some other company's. There is no picture drawn of the nature and activities of the industry, of Equitable's employment, costs, or other significant areas of business operation. For example, we do know that the company's lapse rate was very high for many years. It would seem that this factor would pose an important problem for an insurance company, and it appears unlikely that the Equitable officers ignored it. It would be interesting, and necessary to an understanding of the company's operations and management, to know how they evaluated this situation, what they tried to do about it, and how effective these policies and programs were.

In the same vein, the author describes the presidency of Charles W. Dow, who was appointed to that office in February, 1956: "Somewhat less than a year after he was elected President, Dow, as a result of differences of opinion with the Board on matters of organization structure, submitted his resignation." (P. 244.) The resignation of the president of a large and important company should offer some opportunity for providing the reader and the student of management some insights into the operations, philosophies, and decision-making activities of top-level management; it deserves more attention from the author than it received.

The Equitable Life Assurance Society had more than a fair share of troubles in the past, particularly during the period of the Armstrong investigation in 1905. It not only survived the scandals, but it retained its position of size and leadership in its industry, and built an honored and honorable reputation. This is an accomplishment of no small means, and it is hoped that Dr. Buley will tell us more about it than we have available now in his subsequent work on the subject.

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PATTERNS FROM THE SOD: LAND USE AND TENURE IN THE GRAND PRAIRIE, 1850-1900. By *Margaret Beattie Bogue*. Springfield, Illinois, *Illinois State Historical Library*, 1959. Pp. 327. \$2.50.

Reviewed by Glenn H. Miller, Jr.
Center for Research in Business, Lawrence, Kansas

In this book, Volume XXXIV of the Collections of the Illinois State Historical Library and Volume I of its Land Series, Mrs. Bogue has presented a careful and finely detailed study of land disposal, use, and tenure for the Danville, Illinois, federal land district in the last half of the nineteenth century. Drawing primarily upon local sources such as newspapers, county archives and manuscript collections, the author has set out to trace and explain for the area important characteristics and changes in land use and ownership, in farm tenancy and in economic conflicts among landowners during the period in which the cash grain-farming and feeder livestock-farming nature of the region was being established. The region, lying in the prairie country of East Central Illinois, is composed of eight counties whose area basically coincided with that of the Danville land district.

In Part I Mrs. Bogue discusses land disposal and the original pattern of ownership and early attempts at making this area cattle country, and closes with a case study of the policies and practices of one large-scale landlord. Part II examines changes in land use and ownership after 1850 and gives detailed consideration to three major problems: tenancy, provision of agricultural credit, and real estate taxation.

Sale of only three fifths of the land in the district was administered by the federal government. The remainder was disposed of by the Illinois Central Railroad (much of whose land grant lay in the district) and by state and county governments. Greater emphasis is given in this book to the policies of the latter, since federal and railroad land disposal policies have received more attention elsewhere.

The first two chapters of Part II serve to indicate the changes in East Central Illinois agriculture during the second 50 years of the nineteenth century. The author makes substantial use of U.S. Census data in addition to local sources to show the following: "The region's agricultural growth stemmed from the solution of problems inherent in the intensive use of prairie land and from a successful adjustment of grain and livestock farming to the nation's total agriculture during a span of years which for the most part has been considered inauspicious for the American farmer." (P. 115.) In 1850 the area was dominated by "frontier farms whose isolation from major markets and whose extensive and low-valued lands placed no premium on careful or intensive culture." But by 1900 the region was one of "commercialized farms, highly valued and intensively cultivated, linked to the nation's markets by a network of railroads." (P. 116.) In the interim, increased mechanization of production, improved drainage of wet lands, and changes in the livestock industry contributed to the more intensive land use which occurred in response to market conditions and rising land values.

The high prices for agricultural output which came with the Civil War led to new prosperity after 1863, and made 1866 to 1871 perhaps the

best years of the century for the area. A time of increased immigration and growth in commercial grain farming, it was also a period of increased importance for small operating units in agriculture. The 1870's, however, mark the beginning of a decline in importance of small farms in east central Illinois. Mrs. Bogue's discussion of this change centers on the following factors: (1) the failure of proportionally more small operators in the agricultural depression of the 1870's; (2) the increased mechanization of agricultural production; (3) the availability of farm credit; and (4) the existing land tenure arrangements. In her words: "The explanation of the growth in the size of farm units in the 1870's must lie in the interrelationships of the level of produce prices, the modified corn, oats, and hog economy being established in east central Illinois, the progress in mechanization, and the agricultural credit structure." (P. 145.)

Agricultural credit, mainly in the form of real estate mortgage lending, played a large part in financing land purchase and improvement in east central Illinois as elsewhere in the nineteenth century. Mrs. Bogue has added to the materials available which might aid in our understanding of this field of economic activity by a survey of information contained in federal, state, and county documents; in local newspapers; and in the business records of one east central Illinois farm loan agency. Most of the data gleaned from these sources tend to corroborate the results of other similar studies.

No large amounts of eastern funds were available in the area until after the Civil War. Local agents then began to negotiate farm mortgage loans for investors residing in an area stretching from Ohio to Massachusetts. The loan agent whose records were carefully studied in this investigation personally recruited capital from individual lenders in eastern states, receiving sums of \$1,000 to \$10,000 from "business and professional men, widows, guardians and executors" (p. 192). Loans were confined to land included in a limited area and were made after the agent's personal examination of the farms and their operators.

The 1870's provided more difficulties for borrowers, lenders, and agents than did any later decade in the century. After the Panic of 1873 there was an increased inflow of eastern funds, bringing greater competition among loan agents and a decline in interest and commission rates. Some bad crop years and a period of low prices for farm products also fell in the 1870's, putting many borrowers behind in their interest and principal payments. Except in cases which they judged to be either chronic or hopeless, the local agents generally acted as intermediaries. They usually asked leniency for the borrowers, and even when foreclosure was recommended lenders seldom favored it. Cash returns, even when late and perhaps smaller than expected, seemed preferable to the assumption of ownership of the land and the problem of either managing or disposing of it. Only in the late 1870's were foreclosures common enough in the area to bring much local press comment. The apparent leniency of investors and the local agents' willingness to consider crop and market conditions in determining a farmer's ability to meet payments were important factors in the situation. It seems to have been an *ad hoc* application of the practice of negotiating mortgages providing for deferred or variable payments geared to fluctuations in farm income, a principle which

has since become more important in the making of farm mortgage contracts.

Prompt payment and easy collection ruled in the 1880's. The most distressing situation from the local agent's viewpoint was the diversion of eastern funds from Illinois to the plains states where returns were higher. Allegations of Illinois agents that the plains area mortgage business was full of sharp operators offering bad security undoubtedly contained some truth. But they were probably at least as much motivated by circumstances such as those recorded in the lamentations of one agent, one of whose eastern customers withdrew \$200,000 to lend farther west. Recovery in the Illinois mortgage business is reported at the end of the 1880's and in the 1890's, after the crash in the plains states.

Both from the author's analysis of a local agent's records and from the 1890 U.S. Census report on real estate mortgages it appears that most borrowing in east central Illinois in the late nineteenth century was to finance the purchase of land and improvements, including livestock. Mrs. Bogue concludes that most of the borrowing in the district was for productive purposes. Much land acquisition was speculative in nature, however, and "productive" might not be an exactly proper designation of the purpose of such borrowing.

From her study Mrs. Bogue found evidence of much continuity in the Danville district's land history. Yet "a wide gulf of differences remains between old and new land use and ownership patterns in east central Illinois." (P. 255.) The moral of the story then seems to be that continuity may be found in the midst of change (or perhaps vice versa). If any general criticism is to be made of this book, it must be a criticism of the genre. *Patterns from the Sod* is a carefully documented, able study of agricultural evolution in a limited geographic area. It does, however, fall in the category of certain local histories and enterprise histories which, lacking theoretical frameworks, provide itemized data but few generalizations. Such studies may, of course, perform usefully in challenging existing generalizations or in aiding in the formulation of further hypotheses. (See John G. B. Hutchins, "Recent Contributions to Business History: The United States," *The Journal of Economic History*, Vol. XIX [March, 1959], pp. 105-106.)

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THE OHIO COMPANY: ITS INNER HISTORY. By Alfred P. James. Pittsburgh, The University of Pittsburgh Press, 1959. Pp. 375. \$6.00.

Reviewed by Lawrence H. Leder
Brandeis University

As a significant attempt by a group of colonial entrepreneurs to capitalize upon America's greatest resource in the eighteenth century — land — the story of the Ohio Company of Virginia is one which deserves and has received scholarly examination on several occasions. Some of the basic materials pertaining to it have been published previously, the most recent being Lois Mulkearn's *The George Mercer Papers* (Pittsburgh, 1954), and this has now been followed by Dr. James' volume. This

work is the culmination of two decades of gathering and transcribing Ohio Company manuscripts, the results of which form the A. P. James Collection at the Darlington Memorial Library of the University of Pittsburgh.

Included in the James Collection of 1,228 documents is a wide variety of materials: expense accounts, bills of sale, depositions, journals, letters, lists of mercantile goods, maps, memorials, petitions, resolutions, surveys, warrants, and many other categories. Ninety of these documents, considered to be either representative of their type, generally revealing about the company's operations, or unusual items not previously known, have been published as an appendix. In addition, a complete list of all the materials in the collection has been included, together with full citations as to their original sources.

It is somewhat misleading, however, to designate this as an "Inner History" in the commonly accepted sense of that term. The first section of the volume, a 185-page narrative, is a chronological commentary on the Ohio Company's activities in the light of the new information shed by the James Collection. As such, it contains lengthy lists of purchasers of goods, the items they bought, and the prices they paid, as well as lists of lawsuits instituted in the company's behalf, but the analytical approach expected from a history is lacking. Thus there is very little suggestion as to the pattern of the company's mercantile operations, the relationship of those activities to its over-all operations, and the effectiveness of its handling of delinquent accounts in comparison to contemporary mercantile practices. Dr. James does state, however, that the company did not lose great sums of money as has been frequently assumed.

Although this volume is not an "Inner History" and does not supersede such previous studies as Kenneth P. Bailey's *Ohio Company of Virginia* (Glendale, California, 1939), it will serve as a most useful scholarly guide to a primary collection of economic materials. To the business historian who wishes to explore more fully the land operations and commercial activities of an outstanding colonial venture in the years before and during the American Revolution, Dr. James' work will be invaluable.

• • •

INSURANCE IN VENICE FROM THE ORIGINS TO THE END OF THE SERENISSIMA. By Giuseppe Stefani, translated from the Italian by Arturo Dawson Amuroso. Trieste, privately printed, 1958. Two volumes (paged continuously). Pp. viii + 639.

Reviewed by Raymond de Roover
Boston College

These are two magnificent volumes with a great many full-page illustrations, some in color and others in black and white, published under the auspices of the Assicurazioni Generali di Trieste e Venezia, the large insurance company in Italy, to celebrate its 125th anniversary (1831-1956). The work includes a long historical introduction (in English) of 202 pages followed by a selection of 214 documents (untranslated), extending over four centuries, from 1389 to 1795. Be it said at once that this is not business history, or only incidentally so, because the available

source material consists mainly of statutes, petitions, and regulations rather than of business records (policies, account books, etc.). Although the editor publishes a few of these records, including some entries taken from the account book of Jacopo Badoer (1437-1439), he does not use this material to any great extent.

The whole approach is traditional and emphasizes almost exclusively the legal and institutional aspects of marine insurance in Venice from its inception around 1350 to the end of the Serene Republic in 1797. The author's main interest is in maritime law and in the regulatory activity of the public authorities, especially the V Savi alla Mercanzia, the Board of Trade of the Venetian Republic. Within these limits, he has done a creditable job, although there is one serious omission in his story on the origins of marine insurance. Apparently he overlooked the first examples of undisguised premium insurance, which are found in Palermo notarial contracts of 1350. These documents were published by Riniero Zeno in his collection *Documenti per la storia del diritto marittimo nei secoli XIII e XIV* (Turin, 1936), a work which is not listed in the bibliography. The introduction would also have gained by the author's making greater use of the comparative method; for example, by contrasting the failure of the Venetians to stamp out abuses and frauds with the more successful efforts of the Lloyd's, the famous association of underwriters in London.

In Venice as elsewhere, marine insurance remained in the hands of private underwriters, operating alone or with partners, until the end of the eighteenth century when the first joint-stock companies appeared on the scene. Promoters repeatedly tried to secure monopoly privileges, but the protests of the business community induced the authorities to turn a deaf ear to these schemes or proposals. Fraudulent practices, frequently abetted by brokers, plagued the insurance business, especially in the seventeenth century, and attempts at reform were often blocked by the maneuvers of unscrupulous operators. In the same period, underwriters suffered mounting losses because of the depredations of the Barbary pirates whose attacks increased in boldness as the naval power of the Venetian Republic declined more and more. Mercantile practices and usages were not codified until 1786 when a section dealing with insurance was incorporated in the new Venetian maritime code. The evolution is thus the same as elsewhere, but with a considerable lag, since Venice was a conservative business center reluctant to introduce innovations or to adopt new methods.

The English of the introduction is far from idiomatic. Technical terms are often used improperly. Most annoying, for example, is the repeated misuse of the word "writ" in the meaning of decree or ordinance. Here and there a sentence is devoid of all meaning. Even when comprehensible, English with an Italian flavor becomes tedious after a few pages. To be sure, the translator has a rather good command of English, but this is not enough: to translate a treatise such as this, it does not suffice to know the language fairly well; one also has to know the subject matter and the technical terminology. Furthermore, legal jargon derived from Roman law is extremely difficult to render into English, since our system is based on common law and there are no words to express many of the concepts found in Roman law. Perhaps the Assicurazioni Generali di

Trieste e Venezia should have enlisted the help of a research center or a specialist in this country or in England.

The editor and the translator themselves realized that the translation of the documents would have raised "insurmountable difficulties" and they wisely refrained from making such an attempt. The source material which is made available constitutes by far the most valuable part of this monumental publication. It will be of service to anyone doing research on the history of insurance. The selection of documents is in general excellent. One minor blemish: in document No. 13, on page 230, the amount of insurance taken out should be emended to read £120 groat (*lire di grossi*) or 1,200 ducats instead of 120 florins. As the premium paid was 36 ducats, the rate was 3 per cent on a shipment of goods from Southampton to Venice.

It is only with great hesitation that the reviewer has made a few necessary criticisms, because this is a truly impressive publication. The presentation (format, printing, and illustrations) is splendid. The Assicurazioni Generali di Trieste e Venezia deserves only praise for sponsoring this project and publishing the results in such a handsome form. It is so unusual for business to give unstinted support to pure scholarship that such an endeavor should be encouraged by all means. We ought also to be grateful to the Assicurazioni Generali di Trieste e Venezia for preparing an English edition. Despite the shortcomings of the introduction and the translation, this is a notable contribution to the history of insurance and to that of Venice as an emporium of trade. The Serene Republic may be defunct, but its greatness survives in these pages.

• • •

TAYLORISM AT WATERTOWN ARSENAL, SCIENTIFIC MANAGEMENT IN ACTION, 1908-1915. By *Hugh G. J. Aitken*. Cambridge, Harvard University Press, 1960. Pp. viii + 269. \$3.50.

Reviewed by George S. Gibb
Harvard Graduate School of Business Administration

Let us be entirely frank and admit that there are certain scholars whose books, eagerly awaited and all too infrequently appearing, almost never fail to live up to expectations. Launched with great academic momentum such books, of which this is one, are easier to describe than to review. The problem of criticism is compounded when the reviewer is, as in the present case, forced to confess to a deep and sympathetic interest in the subject matter.

Professor Aitken has elected to deal with two impressive developments at a period in history when they conveniently merged. The merger itself is certainly of no greater importance than the insights it provides of the constituent elements. In his exceedingly competent account of the installation of the Taylor System at Watertown, the author has supplied what this reviewer regards as the most graphic, clear, and fundamental (also, least verbose) description of the Taylor brand of Scientific Management yet written. Scarcely less valuable, at least to those who support the thesis that the federal arsenals were for many years a major factor in American manufacturing progress, is the author's sharply drawn picture

of methods and management at the Watertown plant. The final measure of merit is that this volume transcends its immediate appeal to students who happen to be interested in Taylorism, or the arsenals, or both.

The general purpose of the study of Taylorism at Watertown is best set forth in the prefacing remarks of the author:

To some of my colleagues and to me it appeared that a promising line of attack would be to select a major innovation in business practice, to analyze its content, and to examine its impact upon the ways of doing business that were traditional and normal at the time of its introduction. The Taylor system of management seemed, by these criteria, to be a suitable subject.

Professor Aitken goes on to explain:

The introduction of the Taylor system of management at Watertown Arsenal was not merely a technical innovation. It was also a highly complex social change, upsetting established roles and familiar patterns of behavior, establishing new systems of authority and control, and creating new sources of insecurity, anxiety, and resentment. There in microcosm were all the stresses of an industrial society exposed to constant revolution in technology and organization.

Right here the reader becomes aware that he has opened one of those rare studies which breaks through the artificial boundaries that specialists have erected between the various branches of the social sciences. Professor Aitken's concern in studying Taylorism at Watertown is to find out what the facts really were, in contrast both to what the parties concerned alleged them to be and what they thought them to be. One accomplishment of this volume lies in the fact that the author not only makes the vital distinctions, but shows how such distinctions influenced the course of the historical episode under study. In this respect, one cannot help but be struck by the similarity of approach and findings between Aitken's history and such essentially nonhistorical studies as Ronken and Lawrence, *Administering Changes* (Harvard University, Division of Research, Graduate School of Business Administration, 1952). When these two basic texts are laid side by side, the difference between historian and social psychologist recedes and the essential homogeneity of the social sciences stands clear.

Turning to specific aspects of the book, the reviewer encounters great difficulty in selecting from a wealth of material those points which should receive particular notice. Chapter 1, a pithy 36 pages, describes the philosophy and content of Taylorism and early Scientific Management. The professors in our midst would do well to make a note of the reference, for they will search long and vainly for a better source to which they can send their students. Chapters 2 and 3, dealing with the Ordnance Department and the Watertown Arsenal, tell a great deal about both and provide a most revealing picture of nineteenth-century manufacturing administration. One sees here the job-shopping character of production, the craft-conscious workman, the ubiquitous foreman, the decentralized manufacturing controls.

Against such a background, it would be easy to describe the disruptive impact of Taylorism (essentially, the installation of high speed tool steel) in general terms. The author refuses to accept any of the existing platitudes, however, and follows the installation in greatest detail down to and through a strike that no one predicted and no one wanted. The comparison of pre-Taylor and post-Taylor shop methods will be found to be particularly illuminating. The author does not ignore the premonitory rumblings of the conflict that was to split the Taylorite ranks. He is careful to stress the point, largely ignored by others, that capital investment constituted a major explanation for the remarkable operating results achieved by the successful Taylor System installations. He makes, in many places, the important distinction between administrative and mechanical aspects of Taylorism. The fact is of more than passing significance that the Taylor System was not destroyed in federal manufacturing establishments by congressional prohibition of time studies and incentive wage premiums.

As the story of the Watertown installation is unfolded, the reader achieves a clear feeling for the conflicts, the misunderstandings, and the errors of omission and commission that were roadblocks to innovation. In his statistical appraisal, the author teaches a needed and valuable lesson in historical arithmetic, striking a hard blow at glib acceptance of given figures. Finally, and quite properly, Professor Aitken points to the influence of federal policy in the arsenals upon the whole field of labor relations in American business.

Such criticisms of the study as this reviewer can discern consist on the one hand of a quibbling point and, on the other, of a general comment that probably is not a criticism at all. The author feels compelled to defend the thesis that reactions to innovation at "the level of shop management and organization" at Watertown were not rendered different by the fact of government ownership from those that might have occurred in commercial establishments of the day. My quibbling point arises out of a feeling that this study of innovation is not really dependent upon the "typicalness" of the arsenal, which, in fact, this reviewer feels is difficult to demonstrate convincingly. For one thing, the Watertown manufacturing organization seems to me to have been considerably more archaic than that to be found in reasonably progressive commercial shops. Though the difference would be one of degree rather than of kind, the relative backwardness of the government plant might well have helped to make the Taylor installation more difficult there than elsewhere. There also appeared, to this reader, to be a disposition among the arsenal workers, particularly in the late stages of the dispute, to join management in relegating the controversy to the floors of Congress. Had this been a commercial shop, it seems likely that the conflict would have flared more hotly and burned far longer, with a more complete cremation either of the union or of the Taylorites.

To this qualified quibble over whether the Watertown shop was "typical" in its reactions to innovation must be added a further general comment that may seem almost contradictory. In dealing with his evidence and conclusions, the author exercises great caution and restraint in relating the Watertown episode to broad forces at work elsewhere in the busi-

ness environment of the day. To have attempted the contemplation of any but directly pertinent relationships would, no doubt, have been distracting and unnecessary for the purposes of this study. It seems only fair to point out, however, that the author would have been justified in deriving even broader conclusions than he did. He has provided what seems to me to be not only a fundamental study of innovation but also a graphic picture of the twentieth-century managerial revolution, of which Taylorism and Scientific Management were a cause, a part, and an effect. Everything is here — the institution of central planning; the demotion of the foreman; the fractionation of traditional craft skills; the consequent proliferation and downgrading of job classifications; the methods reorganizations in production, procurement, budgeting, and costing. So, too, with the labor ingredient. The protest at Watertown, even with its variant undertones, was the protest of American labor against the impact of a new Industrial Revolution. The molders, whose militancy in comparison with the attitude of the equally aggrieved machinists at Watertown appears to puzzle the author, had for years been standard-bearers in the conflict, and would continue as such until foundries ceased to be the heart and pulse of American metal fabricating establishments.

If these observations are correct and if they are carried to their logical conclusion, it would appear that *Taylorism at Watertown Arsenal* is entitled to a very much more prominent place in the literature of business and economic history than its too-specific title would seem to suggest. This reviewer has every confidence that readers will agree that Professor Aitken's book is a classic in its field. The remarkable aspect of the volume is not so much that its field is so penetratingly explored as that it embraces so much more than the process of innovation to which the study is explicitly directed.

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In this issue

British Technology and American Railroad Development

Practical demonstrations in Great Britain led some observers to conclude that the railroad would soon introduce "a new era in the business and arrangements of Society." Thus inspired, promoters of the first American rail ventures began to draw heavily, both for practical information and equipment, upon the resources of the British pioneers, whose response was magnificently cooperative.

ROBERT E. CARLSON

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As distrust of American investments lessened, conservative international brokers allowed themselves to be drawn into an economic orbit with ever-widening western limits. Short-term credits to support an active agency business in railroad construction materials led inevitably to longer term commitments. The merchant bankers supplied the facilities for transatlantic capital exchange and by absorbing the best rail and government issues helped create an American market for all grades of railroad securities.

RALPH W. HIDY
MURIEL E. HIDY

The La Crosse Packet Company

River transport was for a time a critical link in the upper Mississippi Valley transportation system, bridging diminishing gaps in the railroad network and linking those river-axis trade centers through which were pouring the human and commodity tides of war and frontier development. Riverboat operations in such an environment offered limitless challenges to management and provided opportunities for both disaster and great profit.

ROBERT C. TOOLE

British Investment in American Railroads

British investors, whose support was of importance to American railroad development, fluctuated between enthusiasm and dismay. Low investment per mile, the performance of certain blue chip carriers, and the native growth potential all stimulated the vital flow of foreign capital. Rate wars, overcapitalization, stock price fluctuations, imprudent reorganizations, and low business morality had an inhibiting effect. In most cases American investments offered little opportunity to exert control. By the late 1890's, British investors had largely outgrown their enchantment with the American railroad bonanza.

A. W. CURRIE

STUDIES IN ENTERPRISE, 1959

A Selected Bibliography

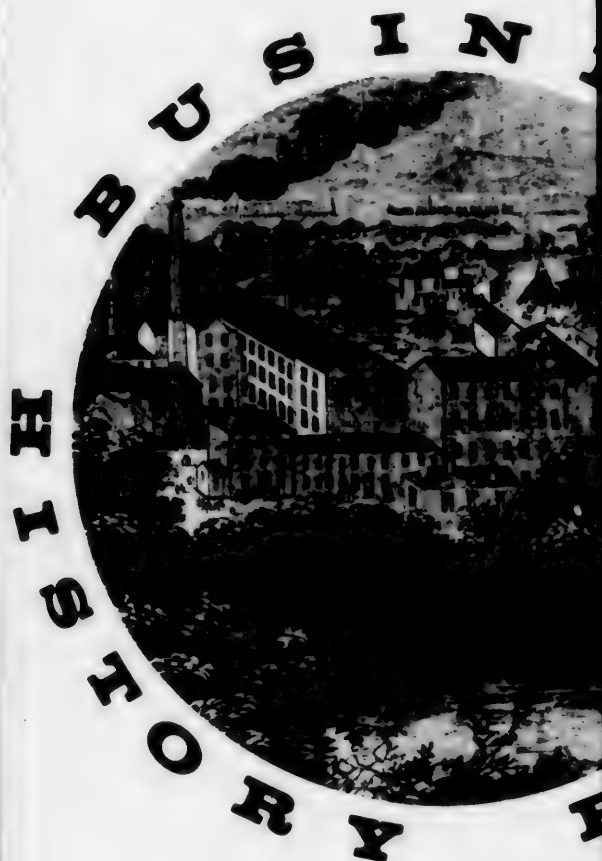
LORNA M. DANIELLS

OVER THE COUNTER

The Businessman Speaks to Historians — Johnson-Supple;
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BUSINESS HISTORY REVIEW

COVER:

The cotton mills of Britain, expansively studied as the breeding ground of industrial and social revolution, continue to interest the historian, today probing deeply in the records for evidence to refine long-accepted generalities.

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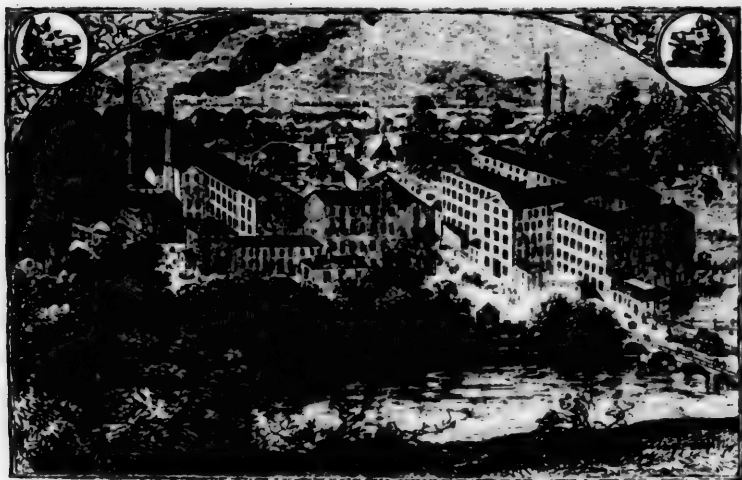
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Walter Evans and Co., Boar's Head Cotton Mills, Darley.

An Early Industrial Community

The Evans' Cotton Mill at Darley Abbey Derbyshire, 1783-1810

“Second generation” historical efforts are shedding new light on the beginnings of the textile industry. Even fragmentary records, minutely examined, yield vignettes that may one day be merged to form important new chapters of industry history. The Darley Abbey story reveals rare operational detail and an interesting variant in the British pattern of development.

by Jean Lindsay

ABERDEEN, SCOTLAND

Since the pioneer work of G. W. Daniels in 1920, our knowledge of the origins of the English cotton industry has increased considerably. A. P. Wadsworth and J. de L. Mann (1931), traced its development to the year 1780, when the mechanical inventions for spinning and weaving were playing their part in creating the factory system. Important elements in the complex pattern of the later period have been studied in such works as *Samuel Oldknow and the Arkwrights*, by G. Unwin, A. Hulme, and G. Taylor (1924), and *The Strutts and the Arkwrights, 1758-1830*,

by R. S. Fitton and A. P. Wadsworth (1958). The extant records of Walter Evans and Sons of Darley Abbey, Derby, contain further evidence of operational methods and indicate a mode of development slightly different from that of the other Derbyshire mills.

THE FAMILY

The Evans family, an old county family with iron and banking interests, entered the cotton industry, not as inventors, but as businessmen, and without experience of the industry in its earlier form. They probably obtained technical assistance from the Arkwrights, whose bankers they were, and from the Strutts, with whom they were later connected by marriage; but the Darley Abbey community was molded by their own paternalistic ideas and by a personal supervision which continued into the twentieth century. Moreover, the frankness of their letters to other manufacturers often illuminates the problems of the early factory-owner, especially the difficulty of recruiting an adequate labor force.

In 1734, Thomas Evans built iron works at Derby consisting of slitting, rolling, and flattening mills.¹ In 1783 he established a cotton mill and a paper mill at Darley Abbey, one mile north of Derby. The Evans Bank was founded by him, in Derby, in 1771;² and from 1786 until his death in 1814 he was treasurer of the county. He had extensive estates in Derbyshire, and his fortune was thought to be worth £800,000. His will, in Somerset House, reveals that this sum was not greatly exaggerated, and the kinsmen who inherited his wealth included his sons Walter and Edmund, his daughter Sarah, and his grandchildren.

William Evans (1755-1796), the eldest son of Thomas, married Elizabeth (1758-1836), the daughter of Jedediah Strutt. A granddaughter described Elizabeth as "a woman of extraordinary charm and power," and tells us that her personality impressed Samuel Taylor Coleridge when he visited Derby in 1796.³ Elizabeth, a widow at the time of the visit, was anxious to engage Coleridge as a tutor to her children, and he was ready to accept the post. He wrote to his friend John Fellows, a silk merchant and a member of High Pavement Chapel, Nottingham, "Everything I saw of Mrs.

¹ S. Glover, *The History and Gazetteer of the County of Derby* (2 vols.; Derby, 1833), vol. 2, p. 424.

² T. E. Gregory, *The Westminster Bank Through A Century* (2 vols.; London, 1936), vol. 2, pp. 82-83.

³ G. J. Curtis, *Memories of a Long Life* (London, 1912), p. 70.

Evans made me consider the proposed situation an object of my highest wishes."⁴

But the opposition from the Evans family to this plan was so strong that it had to be abandoned.

In 1798 Elizabeth married Walter, the half-brother of her first husband. Elizabeth's character must have exerted its influence on her husband's business affairs; in a letter of October 24, 1793, she wrote to her brother Joseph, the son of Jedediah Strutt:⁵

The grand desideratum in Politics is the diffusion of knowledge and morals among the poor. This the manufacturer has it in his power considerably to promote and is culpable in the neglect of it.

Close social connections linked the Evanses, the Arkwrights and the Strutts. In a letter of May 15, 1776, Edmund, the brother of Thomas Evans, wrote inviting William Strutt to Matlock Bath, suggesting a meeting with Arkwright there.⁶

Another letter, of February 3, 1777, from Edmund Evans to William Strutt gives a picture of the younger Arkwright in light-hearted mood:⁷

Poor Mr. Arkwright was sadly disappointed. Last week he went over on Business to Mr. Nightingales on Thursday last and found Mr. Nightingales Fish Pond which is a fine piece of water froze over to bear; this being the case he intd. going there the following morning and set his heart a good deal upon it but the frost very ill-naturedly going on the Friday night disappointed him of his promis'd pleasure.

A third, dated June 22, 1777, names other families who attended these Matlock functions:⁸

We shall make a numerous sociable Dance, Mr. Arkwright, Simpson's, Evans', Toplis' and families will be there as also will the pretty Miss Mather of Derby.

The Evanses, like the Arkwrights, were members of the Church of England. The Strutts were Unitarians, but there were close personal and business links between this family and the Evans family. Indeed at one time William Strutt and his sister Elizabeth were partners in the Evans firm.⁹

⁴ *Collected Letters of Samuel Taylor Coleridge*, edited by E. L. Griggs (2 vols.; Oxford, 1956), vol. 1, p. 227.

⁵ "A Memoir of William Strutt," p. 11. This typescript, reputed to have been written in the late 1890's by or on behalf of the Hon. Frederick Strutt, is in the Derby Public Library.

⁶ Letters in the Strutt Collection, Derby Public Library.

⁷ Letters in the Strutt Collection, Derby. The Peter Nightingale referred to in the letter was the owner of a cotton mill at Lea, two miles from Cromford.

⁸ *Ibid.*

⁹ *The London Gazette*, Jan. 2-6, 1810, p. 26, and Jan. 9-13, 1810, p. 67.

We know little of the family life of Walter Evans. His memorial is somewhat austere, "his family being precluded by his dying injunction from recording anything . . . in his praise." But he was generous toward his workpeople. In 1818 he built a church at Darley Abbey; it was designed by Moses Wood of Nottingham and the living was vested in the name of Walter Evans.

In 1826 a "handsome schoolroom with a house at each end for the teachers" was erected at his expense.¹⁰ He also left to his nephews, William and Samuel, £7,000 to be invested for the teaching of poor children, aged from four to twelve, in the parish of St. Alkmund's. A sermon preached in the church of Darley Abbey on the Sunday after Walter Evans' funeral made reference to his "ample provisions" for the education and "especially the religious instruction of the younger part of the inhabitants."¹¹

Like other manufacturers, the Evanses invested heavily in land. Walter owned land in the neighboring parishes of Breadsall and Allestree. When his sister Barbara was married to William Strutt in 1793, her dowry of £20,000 was invested at the earliest opportunity in an estate at Kingston-on-Soar, the present-day seat of the Strutt family.

William, the son of Elizabeth and William Evans, was the Lord of the Manors of Alkmanton, Newton Grange, Parwich, and Brailsford, and the principal landed proprietor of Allestree, where his residence stood on an elevated site on the west bank of the Derwent.¹² He played an active part in the Commons from 1826, and he served as High Sheriff for the County. His mother's influence may be seen in his advocacy of the reform movement and his friendship with Wilberforce and Shaftesbury.¹³

THE MILLS

In 1833 the Evans family told the Factories Inquiry Commissioners that their cotton mills were built at four different periods: the "old mill" was burnt down in November, 1788,¹⁴ and rebuilt in 1789; "first addition" was of unknown date; "second addition" in 1818; "third and last" in 1821.¹⁵

¹⁰ Glover, *History of Derby*, vol. 2, p. 350.

¹¹ A sermon preached in Darley Abbey Church, Sept. 15, 1839, by the Rev. W. W. Fowler. A copy of this sermon is in Derby Public Library.

¹² Glover, *History of Derby*, vol. 2, pp. 16-19.

¹³ Curtis, *Memories of a Long Life*, p. 70.

¹⁴ The fire at the mill was reported in the *Derby Mercury*, Dec. 3, 1788, as follows: "Between Two and Three o'clock on Saturday Morning last the Cotton Mill at Darley, near this Town, was discovered to be on fire; all possible assistance was immediately procured in order to extinguish it, but in vain; it had proceeded too far, and in spite of every Exertion, in about three hours, that handsome Building was entirely destroyed."

¹⁵ Factories Inquiry. R. Com. Supp. Rep. Part II, vol. XX (1834), p. 92.

Information about the rebuilt "old mill" was given in a letter of December 22, 1791, to the Royal Exchange Insurance Company, when William Evans made the following inquiries: ¹⁶

We desire to know whether you assure us in two terms like the Phoenix, viz. Building for one, and Water Wheels, Geering, Machinery, Utensils and Stock for the other or how do you include those Fixtures and Timbers which are put in the Mill on account of the Water Wheel, Geering and Machinery as part of the Building or the other. . . .

We have also a picking or meeting room in the Attick over a Methodist meeting House. This meeting House belongs to other people, can we insure both in the same policy and on what terms?

On May 5, 1792, the Royal Exchange Insurance Company was informed that the Darley Abbey cotton mill had been insured with them for £1,000. The mill was described as being, "in the first class of Cotton rates" and being of "Brick and Stone covered with Slate situate at Darley in the Parish of St. Alkmunds Derby." An insurance premium of £9 was paid annually to the Royal Exchange Office, London, from 1797 to 1803.

The mills were ventilated by sash windows, which "open half size to full window in whole of three additions to mill; part of old mill now has sash windows, and most of other windows have case-ments which open." Ventilation depended "chiefly on opening windows; we also have large fans which draw the air and dust out of two of the most dusty rooms and which keep these rooms in a comfortable state."¹⁷

The River Derwent provided the only means of power used by the Evanses. They told the commissioners in 1833 that they were uncertain of its extent, since the supply of water was irregular; but they estimated it at 100 horsepower. The mills, they added, had been stopped, "a week at a time by floods and occasionally part of every day for many weeks by short water in dry seasons."¹⁸

THE RAW COTTON

Most of the cotton bought by the Evanses came from the West Indies or from Brazil. Cotton from North America was not used

¹⁶ The Royal Exchange Insurance Company and the London Assurance Company were the only two which were permitted, under the Bubble Act (1720), to carry on joint-stock enterprise in marine insurance. They were incorporated bodies, which issued policies, and made loans to merchants on bottomry, but as their premiums were high, most of the marine insurance, in the eighteenth century, was in the hands of underwriters and insurance brokers. (T. S. Ashton, *An Economic History of England: The Eighteenth Century* [London, 1953], pp. 132-135.)

¹⁷ Factories Inquiry. R. Com. Supp. Rep. Part II, p. 92.

¹⁸ *Ibid.*

by the firm until after 1804, the orders for this cotton being mainly for Bowed Georgia or for New Orleans.¹⁹

Derby is a midway point between London and Liverpool. The Evanses, like the Strutts, purchased raw cotton in both markets. Toward the end of the eighteenth century, however, Liverpool gradually drew trade away from Glasgow, Whitehaven, Lancaster, and Bristol, and began to usurp London's supremacy.²⁰ Comparisons of the London and Liverpool markets were often made by the Evanses. In 1793, for example, Nicholas Waterhouse, one of the leading Liverpool brokers, was told of London's more favorable terms for longer credit:²¹

We were surprized to find that notwithstanding the nominal prices of Cotton were high at London, yet Money was temptation sufficient to purchase Cotton on better terms than you now quote us.

But by 1797 the Liverpool market was finding more favor with the Evanses, and on December 18, George Greaves, their London broker, was informed that: "Pernambucos are very high, and we find our neighbours have purchased much lower at Liverpool." On July 3, 1798, Greaves was again reminded of Liverpool's superiority by the news that,

a considerable quantity of West India wool is arrived at Liverpool and we have lately made some small purchases there on better terms than in London, but we hope the late arrival will enable you to do as well for us.

The following letter of June 6, 1799, to Greaves, shows that the Evanses made full use of their knowledge of the state of the London and Liverpool markets:

As Brazil Cotton is much lower we cannot help expecting Demeraras must come lower, and we beg you will omit sending the remainder of our order for Demerara, unless you can do it on much more favourable terms than the last parcel. We shall rely upon your best endeavours in compleating the orders for Domingo and Maraham. We understand the Liverpool Market is favourable for Brazil.

A letter of July 15, 1800, to Greaves, implies that the London market was being almost wholly ignored by the Evanses, in favor of Liverpool:

¹⁹ See Fitton and Wadsworth, *The Strutts and the Arkwrights*, pp. 265-270, for information about the various kinds of cotton.

²⁰ T. Ellison, *The Cotton Trade of Great Britain, including a History of the Liverpool Cotton Market* (London, 1886), p. 170.

²¹ *Ibid.*, pp. 195-196. Waterhouse also did business for John and Samuel Horrocks, Robert Peel and Co., Peel, Yates and Co., Richard Arkwright, and the Strutts. (S. Dumbell, "The Cotton Market in 1799," *Economic History*, vol. I [May, 1927], pp. 142-143.)

We consider ourselves obliged by your frequent advice respecting cotton, and you would have heard from us before, but we have of late supplied ourselves entirely from Liverpool and Manchester with a few small lots of Brazils of our own importing. We have now from three to four months consumption on hand, but, if you think it advisable, we have no objection to your purchasing two or three tons of good, stout, clean Demerara.

During the Napoleonic Wars the Evanses bought some cotton directly from importers. Amounts, during a year, averaged about 100 bags, and the type of cotton, the cost of insurance, and the charges for transport may be seen from the following extract from the Importation Account for 1800:

		£. s. d.
April 3	To 50 Bags Maranh at Lisbon including expenses,	953.18. 2
April 18	To Geo. Sandeman for Insurance	47.11. 6
June 23	To Hall & Emmett for Freight and charges to Hull.	164. 8.10
June 4	To Flower & Son for freight and Wharf at G	2.10. 3
July 4	To T. E. & Sons for freight from Gainsbro' to Derby	3. 4. 2
June 28	To 49 bags Maranh at Lisbon, including all expenses, 9584 lbs.	1073.17.11
July 14	To Sandeman for Insurance	47.14. 0
Oct. 9	To Hall and Emmett for freight charges at Hull	108. 0.10
Dec.	To Flower & Sons for freight and wharf at Gainsbro'	2.15. 0
	To T. E. & Sons for freight from Gainsbro' to Derby	3. 5. 0

Inquiries as to reliable importers were made by the Evanses on August 22, 1792, to Bolders Adey, Lustington and Boldero of London:

We consume a considerable quantity of Brazil Cotton Wool which we have hitherto bought in London. We have received applications from Messrs. Bearsley & Webb of Oporto and also from Messrs. Evans Offley & Sealy of Lisbon to purchase it for us in Portugal. We are told that Evans keeps his cash at your house, and that Mr. Sealy the man who has the care of the purchasing the Cotton at Lisbon was brought up under Mr. Evans and is known to you; it is proper for us to endeavour to find men of fidelity and attention being unable to have any check upon them except that of putting a stop to the connections. If it is not attended with much trouble to you to make the enquiry we shall be obliged to you to learn and inform us who are the most likely Houses for the purpose of purchasing Cotton in Portugal, and any other circumstances that may occur respecting the probability of its answering a good purpose.

The development of the cotton market in the nineteenth century,

with specialized brokers, made it more and more unusual for spinners to buy directly from importers; and even in 1801 the Evanses preferred to use the services of the brokers, for they wrote, in a letter to Sandeman and Co., the great wine concern,

As we have neither knowledge nor leisure to conduct the business of importing our Cottons, we should certainly wish to decline it, unless it can be done upon a very secure footing.

Yet at the close of the eighteenth century there was an increase in the number of dealers at Liverpool;²² and even in 1816 brokers were still acting as importers and dealers. It was their duty also, before the issue of weekly accounts of the sales and imports of cotton, to circulate market information to their customers. On July 18, 1798, Greaves was asked by the Evanses, "to give us the state of your market and your opinion of the probability of its advance or decrease."

Again, on June 16, 1799, a request was sent for information about the cotton due to arrive from the Leeward Islands:

We understand a Fleet is soon expected from the Leeward Islands. We shall be obliged to you for any information you can give us respecting the Cotton it will bring and how soon it may arrive.

By August 10 of the same year Walter Evans was asking Greaves for "weekly advice for a few weeks till the principal imports are arrived." On October 15 Greaves was told to give notice of the most favorable opportunity for purchases:

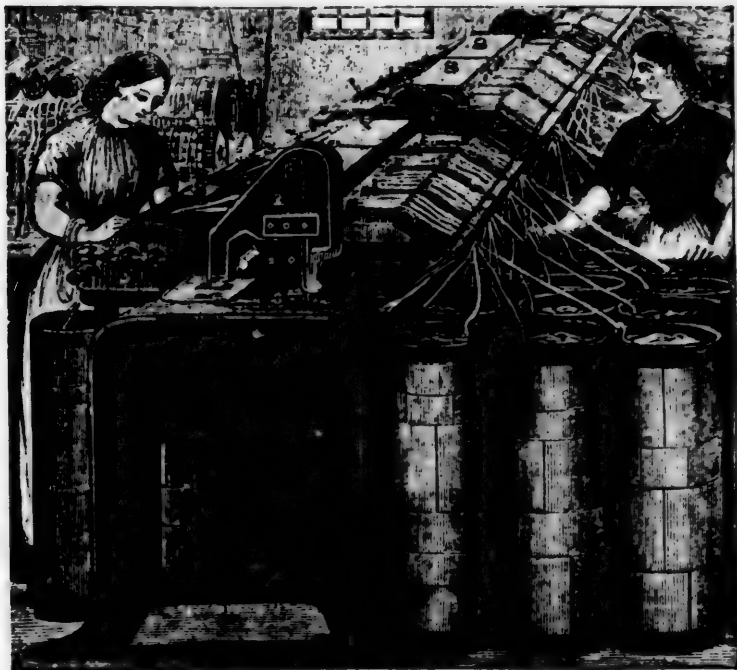
We wish to request you to give us frequent information of the market, but particularly to apprise us when in your opinion it may be the most favourable opportunity to purchase. We think nobody, upon the whole, has earlier information or judges better than your friend Mr. Arkwright. We shall rely upon your candid opinion when a favourable opportunity presents itself.

On October 8, 1788, the earliest mention of samples was made by William Evans when he asked H. Slack to send some by the coach:

If you can purchase Pernambuco Cotton of a real good quality and clean at 22d p. lb. or under we desire you will buy us 2-3 tons wt. of it and when bought send us samples by the Coach for if we like the quality we shall take more.

Samples, however, could not be relied upon to give a true idea of the cotton they represented, and cleanliness of the raw material could not be taken for granted by the mill owners. Waterhouse was

²² S. Dumbell, *Economic Journal*, vol. XXXIII (1923), p. 309.



Doubling Frames, Evans' Cotton Mill.

sent a request on December 3, 1793, by the Evanses, for "no duty nor damaged Cotton at any price," and in July, 1798, Greaves was informed, "We are at present short of hands for picking and we cannot get dirty cotton picked clean."

It was part of the normal work of the brokers to claim allowances for damaged cotton received by their customers. Samples of the cotton to show the defects were usually sent to the brokers, as the following extract from a letter of December 21, 1798, to Nicholas Waterhouse indicates:

We are sorry to have occasion to send you two affidavits of damaged cotton taken out of the Maranhams bought of Messrs. Earls. From the centre of 7 bags we have sent you a fair sample by the coach, and we have no doubt you will obtain a proper allowance. The cotton being unpacked by two persons we have been obliged to trouble you with two affidavits — the whole quantity is 223 lbs.

The Evanses weathered the crises which hit the eighteenth-century cotton industry. In April and May, 1788, some of the

largest London houses connected with the Manchester trade failed, as did Livesey, Hargreaves and Co. of Blackburn, and a number of smaller concerns.²³ In May of this year of crisis W. Purdy received the following instructions from the Evanses:

We shall soon be in want of Cotton Wool and desire you will inform us the present state of your market – if the late commotions have thrown the trade into a greater stagnation than is likely to continue, wish you to purchase a ton weight or two tons of excellent Domingo or Tobago immediately. Wish to hear from you by return your opinion as to the future prices.

The crisis led to a demand for Indian calicoes and muslins to be excluded from the home market, but William Evans was not in favor of this proposal, as he explained in a letter to the Manchester firm of Whitfield:

In respect of the "petition to Parliament for a prohibition of certain East India manufactures" the East India Company having an exclusive trade for a stipulated time for a consideration paid Government we apprehend that the obtaining a temporary convenience (which must arise from the favour of the Company or an injustice done them in depriving them of an advantage, which they paid for), would be a ground of argument for a sacrifice from the people to them at the end of their Charter immensely to our disadvantage, and therefore we think it impolite and improper to make any application to Parliament for a resolution of their importation of their goods until the expiration of their charter.

By August, 1788, the Evanses, expecting prices to fall, gave Whitfield and Co., the following instructions:

We would not buy with Domingo higher than from 18d. to 19d. nor Tobago higher than about 18d. p.lb. We mean good quality at those prices, good clean pernambuco at 21d. per lb. We expect wool to fall considerably soon and probably it may do us no good at these prices.

In the autumn of 1792 a crisis in the industry again developed, and after the declaration of war with France in February, 1793, a climax was reached. The effect of the situation on the spinners was indicated in the letter to Waterhouse on April 20, 1793:

Money is so excessive scarce and trade (both at present and in prospect) so bad that the temptation must be strong to induce us to undertake the inconvenience of raising Money to purchase and if such an opportunity offers to you we would have you take to the value of one thousand pounds.

On the whole, the trade withstood the crisis fairly well, but the

²³ Unwin, Hulme, and Taylor, *Samuel Oldknow and the Arkwrights*, p. 100.

"shock of 1793" was referred to in correspondence as a landmark for years after.²⁴

From Liverpool the Evans' cotton was sent by canal to Derby. In September, 1801, Marsden was asked to forward an order of 5 tons of Martinicos at 2 s. 1 d., "by the Duke of Bridgewater's Flats, or any other persons, to the care of Wm. Salt at Preston port to be forwarded from thence to us by our T. Evans & Sons Boats."

Pickfords and Co. of London carried cotton to Derby from London and Liverpool. They ran two services on the canals: a quick trade by fly boat and a slower, heavier but cheaper trade by barge.

The transport of goods by canal was occasionally unreliable, and in a letter of March 30, 1789, inquiries were made of Purdy about two parcels of cotton wool which had been detained by frost. Transport by coach was often preferred during the winter. On December 21, 1801, Walter Evans sent Greaves instruction on how to send three tons each of Surinam and Demerara:

If the weather continues open to be forwarded by Pickford or Sherratt's Boats and, if not, to cover by land or part by each if the weather is doubtful.

It was the responsibility of the brokers to make sure that the cotton was sent off without delay; on January 25, 1798, the Evanses reminded Greaves of his duty to them:

The 10 Bags Domingo of Hardcastle & Co. and which you mention to have delivered to Pickford on the 2nd inst. is not arrived and from the disappointment, our pickers have nearly stood for work. We beg you will hasten it, and at all times enquire after the delivery of the carrier whether it goes forward in proper time.

From London the cotton was sent by sea and river to Gainsborough, and thence by canal to Derby; the insurance rates were discussed in the following letter of November 17, 1788, to W. Purdy:

We understand insurance for Gainsborough may be done with good people for $\frac{1}{4}$ to one p.c. cash and as the carrier is so uncertain, we desire you will enquire when a vessell at Irongate Wharf will be ready to put it on board and how much she will take that you may send the proper quantity at the right time — be pleased to send five bags each of Grenado & Barbadoes to the Bell, besides the five bags already sent with strict orders to be sent before what they have on hand — you will be pleased to get the insurance on the best market terms and send all the remaining Cotton by Sea as soon as you can directed to Messrs. Smith & Mosley at Gainsboro' we are sorry you have so much trouble with it.

²⁴ G. W. Daniels, "The Cotton Trade During the Revolutionary and Napoleonic Wars," *Transactions of the Manchester Statistical Society* (1917-1918), pp. 57-58.

THE MARKET FOR THREAD

The yarn spun at Darley Abbey included sewing and knitting cotton, stocking yarn, and candlewick, made in counts up to 50. The Evans' market extended over a fairly wide area; they had agents in London, Manchester, Blackburn, Leicester, and Nottingham, and a good deal of yarn was sold direct to merchants and manufacturers.

In 1807 and 1808, attempts were made to establish connections in Bristol and Dublin. In May, 1807, Ball and Co., Bristol hosiers, were sent the following letter:

We are Cotton Spinners and manufacturers of Sewing and Knitting Cottons: and as we much wish to open a connection at Bristol in these Articles, we take the liberty of requesting you to permit us to send samples – provided you are dealers in them, and could make a pretty extensive sale, it would be in our power to supply you on the most favourable terms and with such a quality as is generally approved of – we make up the Sewing both in Skeins and in Balls.

Thomas Dixon of Dublin was likewise asked for orders in November, 1808:

We have for some time manufactured a considerable quantity of Sewing and Knitting Cotton which are much approved of; as we wish to open a connection at Dublin we take the liberty of requesting your permission to send you samples. Dove Gill and Co. of Nottingham were so good as to favour us with your address.

The Liverpool agents of an American House in Boston, Morrall and Barland, introduced the Evanses to possible customers in the United States. In a letter of February 28, 1807, they gave their recommendation:

Agreeably to the intention we intimated of introducing our American friends, likely to purchase the Knitting Cotton, we now introduce you to Mr. Henry Gassett Jun., of the House of Messrs. Gassett Upham and Co. of Boston, a House we have for some time done business with very much to our satisfaction.

The Evanses, however, did not place entire confidence in the report given by these agents. On June 17, 1807, Samuel Evans was asked to make inquiries about the reputation of the American houses:

Morrall and Barland of Liverpool whose names I gave you have written to recommend an American House Bender and Drand of Boston to buy two thread knitting from us – They speak well of the House but as they are their agents, we would not like to rely upon the character we receive

from them and wish you to make enquiry into their credit and respectability. Mr. Bender lives at Manchester who you will call upon and say we have no two threads on hand but could soon make a quantity – but of course you will enquire the characters before you make any offer.

Samuel Evans acted as an agent for his uncle, Walter Evans, one of his duties being to keep the firm informed of price changes. On June 17, 1807, he was asked for advice about keeping a stock of two threads knitting cotton and for his opinion on the probable movement of prices for American cotton:

You will write us particularly whether you think it right to make a stock of two threads knitting. Let the sales of Warps Knitting and Sewing be sent regularly with the weekly sales. You have not answered all the questions upon the paper. Are American Cottons Bowed and Orleans expected lower. Have you returned all the warping Bobbins. We shall send you some sewing Cotton both Skeins and Balls.

When Norris, another agent, had neglected to supply information on price changes, there was a "deal of altercation," as William Evans called it in his letter of March, 1788:

respecting his negligence in omitting sending us information of the different advances in the prices of Twist which occasioned us very great losses by our contracting for large quantities from hence, and also by his accepting various orders for Twist after we had forbid him to do.

Agents were expected to notify their employers of any complaints. The Evans' Manchester agent Rothwell, who failed to give notice of faults complained of by customers, was rebuked in a letter of February 12, 1798:

We desire that we may immediately have the names of the houses and particular faults they have mentioned, and upon what numbers. A few days since we discovered that we had been issuing some surinam Cotton not perfectly clean, which we immediately altered, and as it appears to us that this has been the cause of the complaints, tho' we believe we have frequently used cotton much worse picked. We cannot but consider you as having been negligent in not apprising us of this business earlier; and more particular when you must know we are laying up stock.

Rothwell was given a free hand to make what reductions he thought fit in order to sell yarn in Blackburn, as is shown by the letter of September 22, 1799:

We shall leave it to your management to take advantage of such opportunity as may offer for making sales, and at such reduced prices as you may think proper, though we wish the abatement to be made in an increased proportion upon fine.

On January 10, 1800, the Evanses wrote to Rothwell as follows:

As we consider the price of Cottons and particularly Brazils above the price of twist, we are not particularly anxious to sell, and if you think any alteration likely to take place probably it might be as well to delay your journey a week.

The cotton broker Greaves sold knitting yarn for the Evanses, but on April 2, 1807, he was sent a sample of their sewing cotton in the hope that he could sell it abroad, or wholesale in London:

We wish to send you a small quantity of the Sewing in Skeins if you will give us the Numbers you would like to have. We are at present spinning 10, 12, 16, 20, 25, 30, 35 and 40 and would wish not to increase the Sorts. . . . We have charged the Balls as Messrs. Strutt's Skeins but to you we would take off 7½ p. cent additional that is 15 p. cent present bill and 7½ p. cent after 8 months upon Balls. We have not yet ascertained what saving there would be by skeining.

Agents were sometimes asked for their opinion of the yarn, as in the following letter of September 28, 1807, from the Evans firm to the agent, H. N. Ward:

The Oxford sent you above is our latest make and we wish it to be particularly examined and to hear your opinion of it soon as possible, also of the Turkey in skeins. We have heard Mr. Strutt's balling complained of in the country and we have been desired to wind it in wreaths and this is all we know. We hope you will find this better wound.

In most cases agents were paid by commission: the usual amount was 1½ per cent of the value of the goods they sold, less 10 per cent of any bad debts resulting from sales. The salary of Whitfield and Co., of Manchester, was discussed in a letter sent to him by the Evanses on August 18, 1791:

Hitherto you have preferred an annual allowance, the last year it was settled at £40 more than we expected and the present whole year has been particularly favourable in respect to the demand for it and it must therefore be easier and attended with less trouble. Looking at the whole of it we think two hundred pounds is a proper sum.

On December 22, 1793, the Evanses agreed that the salary of James Rothwell should be £200 per annum and his commission should be ¼ per cent on all goods sold, for which he was told, "you insure to us ten p. cent on all bad debts."

The Evanses shared in the general distress caused by the crisis in the cotton trade, which developed in the summer of 1788. Their prices of yarn were reduced, and higher discounts were allowed.

On February 13, Peels, Ainsworth and Co. of Bolton were informed of the changes:

We annex you an invoice of what three thd. yarn we have sent you this week charged at the reduced prices, also a list of reduced prices of yarn. We beg leave to remind you of the two bunches of fine twist, and we will allow you an extra discount of twenty p. cent off the present prices, on what more you please to take from us.

In 1789 trade had completely recovered; but in 1792-1793 the cotton industry was again plunged into depression. The Evanses became very cautious about giving credit and on April 12, 1793, they wrote to Whitfield and Co.:

We were yesterday inform'd that Jones' Bills were refused. You no doubt will have heard before this can reach you. The Consequences must we fear in time be ruinous to many and the Danger of giving credit under such circumstances must be great indeed. It is not agreeable to increase our Stock, but is infinitely better to do so than to part with Goods where there is any Doubt.

In 1808 the effects of the Embargo Act became felt, and on July 16, 1808, Ward was informed by the Evanses that they had almost stopped spinning twist,

because the trade was run so low we could get nothing by it and many we know have been losing largely by persevering in it. What we are now making is Hosiers yarn and Sewing Cottons, Knitting Cottons and Candlewicks - we have however some stock of twist but which we shall keep unless we can make better of it than many are selling for and indeed it is now going pretty fast at Manchester.

No stock of twist was to be kept in London, Ward was told:

The trade is also run so low that it will never pay to keep a stock of twist in London, except it can be sold at better than the Manchester prices.

At the beginning of 1809 trade was improving, and on January 16 Samuel Evans was sent the following instructions:

At present we cannot wind balls fast enough for orders and cannot take any less than the last advanced price, but if you think it proper you may allow Worthingtons 15 p. cent for money, more we are not willing to do . . . under the present circumstances it will be right to be rather stiffer in the prices, as we think, but we wish to leave it to you as far as we wrote to you in our last to sell about 500 bundles weekly and we would wish not to sell less than 300 bundles a week at the best prices that can be procured, as you know we wish to sell off our twist.

In September, 1809, the demand for the Evans' thread ran high,

and Ward was sent the following explanation for their failure to send all the goods he needed:

In respect to your being disappointed in the receipt of goods, we can only say we send you all we can, and certainly the amount of sales has been much greater than we ever expected.

Our make must of course be limited and will always be so. The demand has been so good that we have lessened our discount much in the country, as selling at heavy discounts when we cannot supply our orders is surely quite out of the question. All the sewings in the bundles we can make we have no doubt would have gone with only $7\frac{1}{2}$ p. cent discount.

We are tonight informed that Cottons are advanced 6d. to 7d. p. lb. and a new list must come out in two or three days.

We hope you will be able to sell the sewings in bundles and knittings in bundles with only $7\frac{1}{2}$ p. cent disc. as these were a poor trade before the present advance upon Cottons. Mr. Strutts, we believe, would not supply a quantity at 1/ — under the skein price, and we understood they are only taking off 6d. on some sorts and to some people.

Sewings in balls should not be more than $7\frac{1}{2}$ p. cent or to indulge a particular Customer for a single parcel 10 p. Cent.

Scotch Thread 12 $\frac{1}{2}$ p. cent as before. The fine twist we have no objection in getting quit of at the prices and discounts sent you 17 July.

The coarse we hope you may do something better with, but if not may sell it as before.

We must repeat that we would have your sales confined to what you have or receive, but if you could see upon a particular occasion reason to exceed the limits at $2\frac{1}{2}$ p. cent, we wish to leave it to you.

We can but send you what we have, and we cannot get you up a stock, if it goes as fast as you receive it.

Payment to the Evanses was by cash or by bills of exchange. The length of credit varied with the state of trade, and with the reputation of the firm with which they were doing business.²⁵

A firm such as Cox and Sons of Nottingham was trusted with generous credit terms, as the following letter sent to them on April 17, 1793, indicates:

We have annexed you an invoice of the yarn sent last week, and also the amount of 10 p. cent reduction on what we have sent you before which we think it right to compliment you with under the circumstances of your taking such Numbers of yarn as we can send until we have got the necessary Quantity of machinery to make a general assortment. The Credit you mention is what we gave you before and altho' it is larger than we commonly give we think well of it from you. We conclude that you mean Cash at End of the time mentioned: on a particular Occasion for your convenience we shall endeavour to accommodate you with taking your Draft at a month or two.

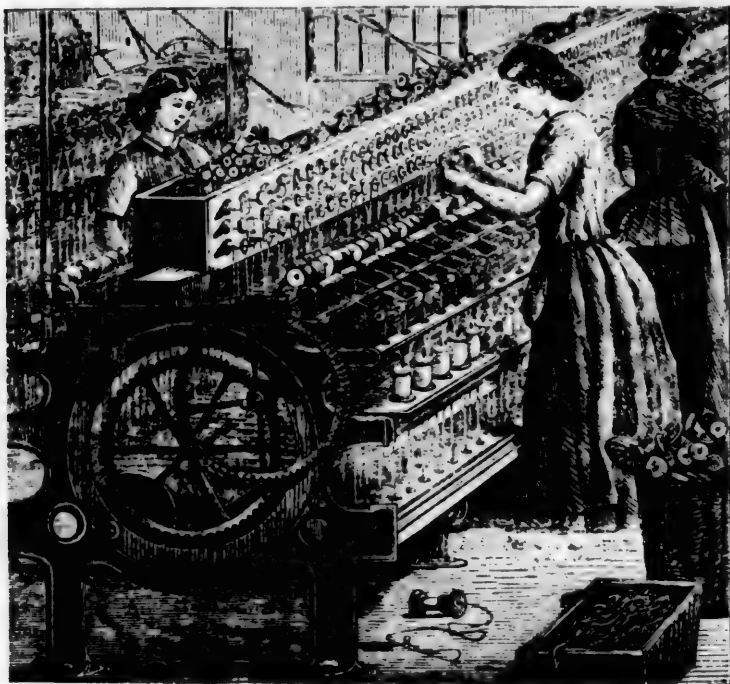
²⁵ See Fitton and Wadsworth, *The Strutts and the Arkwrights*, p. 306.

Discount varied according to the promptitude of payment and the state of trade. The agent, Humpston, was reminded of this on April 16, 1796:

If you find the demand slacks you may find it needful to deduct ten p. cent for money or five after six months upon particular numbers, and on condition of their taking a quantity of those numbers say from 30 to 50 Buns. of N. 13, 14, 16, 18 & 22 — we wish very much to be selling a quantity and without picking out any particular going number but to keep the assortment of what we have as good as possible, you will pay every attention in your power and take all the time that will promote the sale.

The Strutts were usually price leaders, but the Evanses kept an eye on the general pattern of the market, as their letter of October 3, 1807, to Ward shows:

As to Groce & Balls provided you can find out what Mr. Cartlidges and Melvills sell for. We would have you sell on the same terms. You will endeavour to learn Mr. Cartlidges & Melvills prices. Ours are the same as Mr. Strutts $7\frac{1}{2}$ p. cent discount upon the Sewings — upon considering



Drawing Frames, Evans' Cotton Mill.

of it we would have you sell Gro. Balls at 5/ — deducting 7½ p. c., for money will be 4/7½d. If Mr. Cartlidges sells at 7¼ a groce and deduct 5 p. cent for money will be 4/8d.

Paying at the end of 3 months is we believe the regular plan, and what we must comply with. It will be necessary for you to procure specimens to send them to us of anything that you expect would sell. Maybe you could procure samples of N.12, 14, 16. . . , stating what number is most in demand. Also Bonnett Cotton etc. As to Mr. Heath we shall think neither Mr. Arkwright nor Mr. Strutt would make any extra allowance upon Knittings and Mr. Arkwright does not get up any sewings but sells only in the Brown in 10 lb. Bundles, such attempts are often made to reduce the prices.

An explanation of the proposed discounts to be made by the Evanses was sent to Francis Burgess of Leicester, on February 14, 1808:

We believe you are still not quite correct about the discounts we first proposed.

7½ p. cent addt. discount upon balls.

10 " " " " " skeins.

2¼ " " " " " knittings.

Afterwards we sent you new lists with an addition to the Ball list for the expense of Balling, and we then wrote you we proposed allowing you 10 p. cent additional on Balls and Skeins.

You will therefore be entitled to the former discount until the list were altered, and to the latter since. As to the Knittings we will allow you the 5 p. cent additional tho' we assure you we can ill afford it. You must understand the additional discount will be taken off the reduced amount. Mr. Arkwright has two lists of sewings, one is what he calls hard and heavy, which is made 10½ lbs. p. bundle to allow for loss in bleaching. This is not in his printed list, but ours is made 10¼ lbs. and is charged exactly the same as his. Probably it will be better at first to get an order for a little upon the Trials as there cannot be many users of it, and send for exactly what you want. We will allow you the same additional discount upon this as upon Knittings say 5 p. Cent.

THE WORKERS

The history of Darley Abbey goes back to the reign of Henry II, when Hugh, Dean of Derby, gave the land to Albinus, abbot of St. Helen's, so that the latter might erect on it a church and habitation for himself and his Austin canons.²⁶ On October 22, 1539, the abbey was surrendered to the royal commissioners by the abbot and 13 monks; the site was granted to Sir William West, who built himself a house from the stones of the abbey.²⁷ The house which

²⁶ Many manors and acres of land in different parishes were later given to the house by men of wealth. (Glover, *History of Derby*, vol. 2, p. 349.)

²⁷ *Ibid.*, p. 350. In 1709 this house was pulled down by William Wolley who built

Walter Evans bought in Darley Abbey was set in parkland, with an avenue linking it to the Duffield road, which ran from Derby to Belper.

The abundant supply of water power at Darley Abbey made the village a good choice for the site of a cotton mill, but local supplies of labor were not so easily available. Derby, one mile away, had an increasing number of industries: these included the manufacture of stockings, the porcelain works, the manufacture of calico, copper and iron works, and the silk mill which was reputed to employ 1200 workers.²⁸ Competition for labor, therefore, was keen, and there were many obstacles to the movement of workers which had to be overcome.²⁹

Moreover, the factories' strict discipline and long, regular hours, made workpeople reluctant to enter them. In order to attract workers to Darley Abbey, the Evanses provided well-built houses, wages that were above those of agricultural laborers, and medical and educational facilities. When the community was created, the Evans family maintained a paternalistic attitude toward their employees and assumed responsibility for their welfare.

In 1788 Darley Abbey had contained 47 houses; the census returns show the steady growth of the community.

	1801	1811	1831
Inhabited Houses	92	116	172
Families	107	129	196
Inhabitants	615	796	1170

In 1789 Pilkington wrote of Darley Abbey "There has lately been a very great increase in population here. This is entirely owing to the erection of a cotton mill by Messrs. Evans, according to the model of that invented by Sir Richard Arkwright."³⁰

By 1829 the number employed at the mills was between 500 and 600: 192 of the families in the village were employed in trade, manufacture, and handicrafts, and 4 in agriculture. Out of the 220 males over the age of 21, 130 were engaged in the manufacture of cotton and paper, 27 in agriculture, and 27 in retail trades, while 29 were retired tradesmen, superannuated laborers, and so on. There were 6 stocking-frames, but there was no workhouse; most

a new one on the banks of the Derwent. From Wolley the house passed into the hands of Heaths, the Derby bankers; and from them to Robert Holden, who sold it to Walter Evans.

²⁸ J. Pilkington, *A View of the Present State of Derbyshire* (2 vols.; Derby, 1789), vol. 2, pp. 170-178.

²⁹ T. S. Ashton, *The Industrial Revolution, 1760-1830* (Oxford, 1948), pp. 110-111.

³⁰ Pilkington, *A View of Derbyshire*, vol. 2, p. 196.

of the pauper children were employed at the cotton mills without being apprenticed. There were two friendly societies, a male society with 155 members and a female society with 80.³¹

It seems that the greatest rate of growth of the community was between 1780 and 1801; thereafter, the rate declined. It is probable that a fair number of people born in the Darley Abbey area found work outside the village after 1801. Between 1780 and 1801 the community increased as a result of immigration, but after this early period, except for a marginal number of immigrants, the increased population was due to the growth of numbers within the village.

A small number of skilled workers came from other cotton mills at places such as Tutbury, Uttoxeter, Markeaton, Allestree, Little Chester, and Breadsall. Unskilled workers from the surrounding countryside were trained; and it would appear that within an industrial region mobility was considerable, despite the Laws of Settlement. An instance of this migration from town to town was the case of Ann Moore, a worker at Darley Abbey, whose travels were described in a letter of June 25, 1805, to George Marsden, the Evans' Liverpool cotton broker, in which he was asked to make further inquiries about her:

A woman of the name of Ann Moore who says she belongs to Liverpool and now receives 2/- p. week from the Parish through a Mr. James Packer, Linen Draper, who lives in South Union Street, has brought her family to work at Darley, which consists of two boys and a little girl. As we make it a rule and a very necessary one to enquire the character of people we shall be much obliged to you to see Mr. Packer to enquire if her account of herself is true and what he knows about her. She says she buried her husband who was a sailor at Liverpool. She says she does not know what Parish in Liverpool she belongs to, but that Mr. Simmonds is the Overseer who pays the money to this Mr. Packer. She has been in Birmingham a year and a half, left there only last Thursday.

The mill workers, in general, enjoyed a higher standard of living than the agricultural laborers. John Farey, who toured Derbyshire on behalf of the Board of Agriculture, noted this state of affairs with some dissatisfaction:³²

The earnings of the operative Manufacturers, except perhaps during very depressed states of their respective Trades, considerably exceed those of Agricultural Labourers, often very much so, and so do their style of living and means of comfort, except as is much too common, an addiction

³¹ Clover, *History of Derby*, vol. 2, p. 348.

³² J. Farey, *General View of the Agriculture of Derbyshire* (3 vols.; London, 1811), vol. 3, p. 499.

to drinking, in a lesser or greater degree, diminishes their application to business and considerably absorbs their earnings.

Other contemporaries were likewise not at all convinced that the new factories were bringing greater happiness to mankind. John Byng wrote in his diary, after a visit to Cromford: ³³

I dare not, perhaps I shou'd not, repine at the increase of our trade, and (partial) population. Yet speaking as a tourist, these vales have lost all their beauties; the rural cot has given place to the lofty red mill, and the grand houses of overseers; the stream perverted from its course by sluices and aqueducts, will no longer ripple and cascade. Every rural sound is sunk in the clamours of cotton works; and the simple peasant (for to be simple we must be sequester'd) is changed into the impudent mechanic, — the woods find their way into the canals; and the rocks are disfigured for limestone.

Many of the workers shared Byng's dislike of the manufacturer, and in the early stages of the growth of a firm, the shortage of skilled labor made it essential that workers should be hired for a specific period. This safeguard, however, was often abused. Sometimes the Evanses had to apologize to neighboring firms for having, unwittingly, given employment to workers who had not completed their term of engagement with a previous manufacturer. In a letter of January 28, 1801, to Jn. Flint of Uttoxeter, Walter Evans explained the case of the Waine family:

We had no wish to take Waine and family and we did not do it till after repeated application of assurances of their being disengaged of which we had not the least doubt from their being sent by the parish, and the Overseer coming along with them. If they have deceived us in this respect and they are hired by you, they must of course be sent back if you insist upon it but as we understand their hiring expires in March, you will probably not wish to put the Parish to as much trouble and expense.

A few days later the Overseer of the Poor, Francis Turner of Doveridge, was asked to remove the Waine family, and the following letter indicates how strongly the Evanses felt that mill owners should be united against restless or dissatisfied workers:

We understood both from you and from Waine that his family was at liberty. We were much surprized to have them reclaimed by Mr. Flint as his hired servants which Waine has since acknowledged. As this is the case we can on no account keep them from their legal master without his permission. We have informed Waine we should be obliged to dis-

³³ J. Byng, *The Torrington Diaries (1781-1794)*, "A Tour in the Midlands: 1790," p. 251. A selection from the tours of the Hon. John Byng (London, 1954). Edited by C. B. Andrews.

charge his family unless he can bring a release from Mr. Flint who certainly may compel their return if he thinks proper.

We have given Waine a week's notice to leave, by which time we hope you will send for them.

Other workers from Flint's mills applied for employment at Darley Abbey, but no chances were taken a second time, and all were turned away. Their previous employer was informed:

R. Field and one of the Slaters have applied to us for work but we have not taken them as it is not customary with us to set any strangers to work and we hope they are by this time returned to you. . . . They appear determined to leave Doveridge — we would wish you to consider whether our discharging them will be of any service to you. If not probably you would not wish to put the Parish to the trouble and expense of removing them. Should any more apply, you may depend upon their not being taken here.

Seduction of workers from Darley Abbey by other mill owners caused much annoyance. In June, 1795, the Robinsons at Papplewick Mills were advised:

We are informed that a widow woman named Margaret Holmes has taken her children from us to work for your brother or you and we understand that some others from us have also made application for employment. We do not know whether they have applied to you or not, but as that is possible we take the liberty to ask you whether it is your intention to take our hands if they do offer. It will not be convenient at present for us to part with those we have entirely taught their business.

A reply from Papplewick, of July 10, 1795, assured Walter Evans that they "did not take any hands from other Mills."

Loss of workers through enlistment in the armed forces was another problem. On May 2, 1797, a bid was made to obtain the release of an apprentice who had joined the Marines, as it was feared that others would follow his example. The mill owner's point of view was expressed in a letter to the Recruiting Officer of the Marine Forces, Halifax:

A young man of the name of Stephen Mosedale an apprentice of our trade of a millwright was enlisted by a Corporal in the Marines going through this place on Saturday last 29 April and we are informed has taken him with him to Halifax. He was informed that he was an apprentice but to avoid any measures being taken he took him off early in the morning after he had enlisted him. We are proprietors of a Cotton Manufactory in which we have necessarily many apprentices and the example of one being taken away would be very prejudicious with the others. On this account we shall spare no pains nor cost to recover him and as we believe such conduct is not allowed in the enlisting service we flatter ourselves we shall meet with your assistance.

Factory owners often required references from their workers, but this may have been to avoid any chance of engaging someone who was not free. On July 13, 1797, the Evanses replied to a request for information to J. Bury, of Stockport, about a former employee, in the following manner:

Charles Clarke has worked for us at different times but not for any long time together for several years. We do not believe he is dishonest but we have found him guilty of foolish tricks to the Master of the rooms where he has been employed. The last time he worked with us only for about three months and we did not then see any improper conduct in him, you are at liberty if you think proper to read this to him.

The early manufacturers could certainly not take a disciplined labor force for granted. Since many of their workpeople came from domestic industry and not a few of them were unused to mill life, they had to be welded into a body of regularly attending and sober laborers. Hence a system of fines was instituted to discourage such offenses as being absent, swearing, or not attending day or Sunday School. The rules imposed by the Evanses may be illustrated by the following examples of fines:

			£. s. d.
1786 March	25	4 apprentices for not attending school	2. 0
1795 July	23	N. Harvey & H. Shape forfeited for swearing	1. 9
Aug.	11	Sundries Gift Money forfeited ³⁴	3. 4
1800 July	3	By sundries for lost time	2. 8½
1801 June	25	By Elizabeth Redgate's Gift Money forfeited for not giving warning (of her intent to leave her employment).	Amount not stated
Dec.	24	By Henry Edmunton for firing his chimney	Amount not stated

At other times, however, forfeits were returned, as the following examples show:

1795 Dec.	10	S. Brown's forfeit returned	2
1796 Jan.	7	S. Oldknow's forfeit returned	4½

In 1833 the Evanses told the Factories Inquiry Commission that the children were: ³⁵

Reprimanded; if this is not sufficient, forfeited two pence to three pence to a sick fund, the whole of which fund again given to the hands, with some additions from the firm, in cases of temporary illness. When much in fault the hands are sent home for a quarter or a half a day and if they become unmanageable they are dismissed.

³⁴ Possibly the scheme was similar to that of the Strutts'. See Fitton and Wadsworth, *The Strutts and the Arkwrights*, p. 233.

³⁵ Supp. Rep. Part II, vol. XX (1834), p. 93.

Corporal punishments, the Commissioners were told, were "forbidden in all cases," and the foreman and overlookers had instructions, "never to strike the children, but to send them to be reprimanded by a partner, in cases where they do not properly attend to the master of the room."³⁶

Regular gifts were made to the Sick Club by Walter Evans:

July 1, 1797	Your Present to Darley Sick Club	£5. 5.0d.
Nov. 23, 1797	Your present to the Club Society	£5. 5.0d.

The society made payments to members during illness:

Dec. 20, 1798	One week's pay to Buxton	3.6 d.
Oct. 10, 1799	" " " " S. Peach	7.10d.

In 1795 Henry Hadley was paid £8.7.s.0d. for "Sundry Cures" at the cotton mill; and 79 and 113 children were inoculated against smallpox in 1797 and 1803 respectively.

The Friendly Society, or Sick Club, undertook some social activities, such as a dinner given on January 9, 1798, at a cost of £2.16s.10d.

Houses were usually provided for the workers; in 1833 the Factories Commissioners were told:³⁷

Nothing is done absolutely to enforce domestic cleanliness, but much pains are taken to encourage it, and when any families continue very dirty, we have them sent away from the place. We also regularly white-wash the cottages at our own expense, at least once, and generally twice a year throughout the inside of the cottages.

The Commissioners' Inquiry provides information about the hours of work at Darley Abbey.³⁸ Before 1828 a 72-75 hour week was the rule, but in 1833 the hours of work, for those aged 21 and over, were 12 for the first 5 working days of the week, and 9 hours on Saturday. The average number of hours of work on each day of the week in 1833 was given as "11 hours 34 minutes, excluding holidays." The greatest length of time the children worked on any day in the same year was "13 hours for some four days to make up time lost by accidents." Relays of children under 21 were not employed when overtime was worked, as the Evanses claimed that this would have caused great inconvenience, "and when work was ill done or spoiled, we could not tell by which hand it was done."

Children of 9 years and upwards were employed,

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.*

but in the first year or two they were generally employed in light work connected with spinning or finishing threads, in the outbuildings in which there is no machinery.

No night work was done at Darley Abbey, and the Commissioners were told that the Evanses had "great objection to it."

Most of the workers in the Evans' cotton mill were women and children, but it is probable that Thomas Evans found occupations for some of their men-folk in his other mills, either at his Derby iron works, or at Darley Abbey, where he owned a red lead mill, a brick kiln, a corn mill, and a farm.

• • •

Walter Evans died in 1839, and his nephew Samuel succeeded him as owner of the mills. His grandson Walter eventually took charge until he died in 1903, when the mills passed into the hands of a Scotsman called John Peacock, who turned the concern into a private limited company. Today the firm continues under the title of Walter Evans and Company, Limited.

The firm's records, being incomplete, tell us little about the rate of production and less about income and expenditure, while the loss of the Wages Books leaves our picture of the labor force incomplete. We can, however, learn something from surviving records about market conditions, labor relations, and methods of organization, and about the way in which these developed during early stages of the Industrial Revolution. In particular, there is revealed a kind of mill owner who was different from those typified by Richard Arkwright and Jedediah Strutt.

The fact that the Evanses were members of a prosperous county family influenced their attitude toward the ownership and management of the mills. They established a community in which their overlordship had to be acknowledged, and they took care to maintain their patronage and social superiority throughout the nineteenth century, and even to the beginning of the twentieth. Whereas the Strutts and the Arkwrights were early tycoons, the Evanses were gentlemen factory owners, who extended their traditional position as members of the upper class into business affairs. This distinction revealed itself in the organization at Darley Abbey, where attention was paid not only to the material, but also to the moral and spiritual welfare of the workpeople. That the mills did not ever become a large-scale concern may be due, in part, to a lack of ambition, and to a desire by the Evans family to pursue a paternal and enlightened labor policy.

Agency commission 15%; cash discount 2%—15th following month.
General Advertising
 Flat 32"
 Composition 10"
Position Charge—Extra
 Next to reading 33"
 Full position 37"
 Minimum full position 28 lines.
Classified Rates
 .01 word. Minimum .20.
Reading Notices
 10 count line.
Contract Requirements
 Contracts expire 2 year from date of first insertion, copy to start 30 days from date of contract.
Representatives
 None.

WASHINGTON DEMOCRAT

Published Evening except Sunday.
 Rates effective April 1, 1922.
 Agency commission 15%; cash discount 2%—15th following month.
General Advertising
 Flat 25"
 Composition 68"
Position Charge—Extra
 Position 25%
Classified Rates
 .01 word. Minimum .25.
Reading Notices
 10 count line.
Contract Requirements
 None.

HERALD

Published Evening except Sunday.
 Rates effective March 15, 1922.
 Agency commission 17%; cash discount 2%—15th following month.

BOONE NEWS-REPUBLICAN

Published Evening except Sunday.
 Rates effective September 1, 1920.
 Agency commission 15%; no cash discount.
General Advertising
 Open 50"
 300 inches 34"
 750 inches 34"
 Composition 68"
 Minimum display 5 inches.
Position Charge—Extra
 Full position 34"
 Minimum full position 10 inches.
 Position not sold on medical.
Classified Rates
 .01 word. Minimum .25 per insertion. Cash with order.
Reading Notices
 10 count line. No news heads.
Representatives
 None.

BURLINGTON GAZETTE

Published Evening except Sunday.
 Rates effective September 1, 1920.
 Agency commission 15%; cash discount 2%—15th following month.
General Advertising
 Flat 675"
Position Charge—Extra
 Top, next and above reading 50%
 Under and next to reading 25%
 Minimum position 28 lines.
Minimum Size R.O.P.
 4 or 2 columns 14 lines; each additional column 14 lines.

count 2%—10th following month.
General Advertising
 Flat915
Position Charge—Extra
 Next to reading 15%
 Full position 25%
 Minimum full position 42 lines.
 Center spread charged 15 cols.
Minimum Size R.O.P.
 1 or 2 columns 14 lines; each additional column 14 lines.
Classified Rates
 .01 word. Minimum .25. Cash with order. Stamps taken on orders less than 1.00.
Reading Notices
 .01 word; black face .02 word. Minimum .25. Cash with order. Stamps taken on orders less than 1.00.
Contract Requirements
 Contracts expire 1 year from date of first insertion.
Special Pages
 Farm news page Thursday.
Representatives
 N. C. Theis Company.

CEDAR RAPIDS GAZETTE

Published Evening except Sunday.
 Rates effective October 1, 1920.
 Agency commission 15%; cash discount 2%—10th following month.
General Advertising
 Open 84"
 1400 lines 77"
Position Charge—Extra
 Next to read 10%
 Full position 25%
Classified Rates
 .01 word. Minimum .20.
Reading Notices

ABC and SRDS

The Evolution of Two Specialized Advertising Services

“The advertising industry generated remarkably prompt responses, at both the institutional and individual level, to the opportunities and problems of growth. Once associationist activities had achieved a measure of industry self-regulation and self-analysis, individual entrepreneurs stepped in to offer specialized services that grew in value as the professional status of the parties concerned became established and differentiated.

by Kenneth H. Myers

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The advertising industry in the United States has long been a major economic factor, not only in terms of its impact upon demand for goods and services, but also in terms of the proportion of national income which is expended annually upon the creation and transmission of advertising messages. To assist purveyors of goods and services in expending the vast sums annually allocated to their advertising efforts, highly specialized

middlemen have evolved, most notably the advertising agencies. As an indication of the complexity of modern industrial society, however, additional specialized services have also developed to assist the middlemen. Some of these services, such as the Audit Bureau of Circulations (ABC) arose through cooperative action by the various interested parties — advertisers, advertising media, and advertising agencies — while others were the creation of individual entrepreneurs who recognized a need, and a corollary opportunity, almost as soon as it came into existence. Among the latter is the Standard Rate and Data Service, Inc. (SRDS), an institution which collects and publishes information essential to the media-buying function. As will be indicated by the following account of the development of these two services, the American economic environment seems to have provided both motivation and opportunity for the introduction of a wide variety of highly specialized service institutions without which the broader forms of economic activity, such as advertising in general, would have great difficulty in functioning. In a broad sense, the most significant aspect of the following account is, then, the demonstration of the remarkable responsiveness of the American economic system to the needs and opportunities of a dynamic economic environment.

THE AUDIT BUREAU OF CIRCULATIONS

The primary impetus for the ABC, a nonprofit, cooperative service devoted to the collection and publication of verified statements of media circulation, came from the major advertising agencies of the early 1900's. As has been developed by Ralph M. Hower in his study of the advertising firm of N. W. Ayer & Son, the advertising agency as a species of business enterprise had just emerged from an interesting and pertinent period of evolution.¹ Before reaching the "open-contract" pattern which has characterized agency-client relationships from about 1900 to the present, the business of the advertising agent passed through four recognizable stages or modes of operation: (1) newspaper-agency; (2) space-jobbing; (3) space-wholesaling; (4) advertising-concession-agency; and (5) open-contract or fixed-fee pattern.²

The first, or *newspaper-agency* stage, was the type of business inaugurated around 1845 and which is still carried on by "special

¹ Ralph M. Hower, *History of an Advertising Agency* (rev. ed.; Cambridge, 1949), pp. 11-13.

² *Ibid.*, p. 13. This statement and the following description of each stage is adapted from this source, pp. 13-14.

representatives" of various advertising media — newspapers, magazines, business papers, radio stations, and television stations. In this phase the newspaper representative or "agency" clearly represented the media, not the advertiser, and took no proprietary risk in the space on whose sale the agency received a commission.

In the second, or *space-jobbing* stage, the newspaper representative sold space to advertisers and then bought space from newspapers to fill his orders. His superior knowledge of available media and of media rates allowed him to assist the advertiser by developing effective advertising schedules at less cost than if the advertiser dealt directly with the media. Then, too, the media profited in that they were spared the expense of direct sales effort. Since the newspaper representative bought and sold on his own account, however, he really represented no interest save his own. Agency practice in this stage was to buy cheap and sell dear, an objective which often caused the representative to recommend lists composed of the newspapers which offered him (the space jobber) the largest discounts rather than lists compiled on the basis of their compatibility with the advertiser's interests.

It was but a short step from the second stage to the third, or *space-wholesaling*, era. This form, which developed around 1865, saw the independent "agent" buy space in both newspapers and magazines in large quantities *in anticipation* of the needs of advertisers and resell it, as needed, in smaller lots. He thus assumed the role of a wholesaler or capitalistic middleman, no longer seeking quick profit in nearly simultaneous buying and selling, but incurring some of the ownership risk previously borne wholly by publishers. Each advertising agent owned space in a group of papers and/or magazines, and his efforts were directed toward inducing advertisers to buy space from this list of media. When a perceptive advertiser objected that a ready-made advertising schedule did not meet the precise needs of his market, the agent would revert to his capacity as space-jobber or broker, buying space in other media to round out the advertiser's program as desired.

Another aspect of this phase was competitive bidding — advertisers would make up lists of newspapers (and schedules of insertions therein) and interested agencies would submit bids on the entire program, the business going to the lowest bidder. At this stage the advertising agency was probably as far removed from today's service-type, fixed-fee arrangement as can be imagined.

About 1867 the idea of wholesaling space in magazines was carried one step further with stage four, the *advertising-concession-*

agency. Carlton and Smith (subsequently the J. Walter Thompson Company) and other advertising agents began to contract annually with periodical publications to take the latter's *entire* advertising space in return for a lump sum. Agents thus acquired the "concession" for advertising in particular media and thereby became even more deeply involved as capitalistic entrepreneurs.

In the latter three forms — *space-jobbing*, *space-wholesaling* and *advertising-concession* — the advertising "agent" found his middle-man position becoming increasingly complex. Although he encouraged both advertisers and publishers to look to him for advice and assistance, his judgment was biased by his proprietary interest except where he acted merely as a "broker"; and, even there, the prospect of special discounts or secret rebate arrangements was a corrupting influence. As a result of this package of conflicting interests, and the haggling and sub-rosa agreements which the system engendered, advertising came to be regarded with distrust by publishers and advertisers alike.³ In spite of his misleading title, it was clear that the advertising agent represented no interest save his own.

The parties directly affected by this chaotic condition in advertising were, of course, the publishers, the advertisers, and the agencies. By the middle 1870's, some advertising agents were sufficiently disturbed by their ambiguous position and by the disrepute into which their young profession had fallen to seek a clarification of their relationship with publishers and advertisers. First G. P. Rowell and then N. W. Ayer & Son experimented with arrangements whereby they guaranteed to place an advertiser's schedule at cost plus a fixed percentage of the billing (Rowell)⁴ or for a fixed annual retainer (Ayer).⁵

As early as 1889 the efforts of Ayer & Son, Rowell, and others to stabilize agency compensation received considerable support from the American Newspaper Publishers Association, which compiled a list of the agencies it would officially "approve," i.e., to which commissions (or discounts) would be granted.⁶ The efforts of this Association to regularize agency commissions and thus "put an end to the demoralization of their own rates"⁷ were further advanced in 1894, when resolutions were passed against allowing an agency commission to advertisers or their employees. The ultimate

³ *Ibid.*, pp. 52-53.

⁴ Frank Presbrey, *The History and Development of Advertising* (New York, 1929), pp. 266, 271.

⁵ Hower, *History of an Advertising Agency*, pp. 233-234.

⁶ *Ibid.*, p. 404.

⁷ *Ibid.*

step along this path was taken in 1901 by a prominent publisher, the Curtis Publishing Company. Curtis, by a unilateral action without precedent in its boldness and implications for advertising, put into effect a contract by which it bound agents not to cut rates, under penalty of losing the commission, and bound itself not to allow the agent's commission to any advertiser, directly or indirectly.

In explaining the action taken by Curtis and other publishers to stabilize agency commissions, two reasons are often advanced: (1) agencies would presumably be selected on the basis of the quality of their performance, and advertisers would benefit from the superior advertising programs that presumably would result; and (2) publishers would also benefit because advertisers would find their programs more successful and would consequently be inclined to allocate larger budgets to this form of sales promotion. While these presumptions may be largely true, it also seems reasonable to suppose that, to the extent that agencies were relieved of the necessity of haggling with clients over commission charges or discounts, publishers were relieved of the necessity of arguing with either agencies or their clients over space rates. In other words, publishers had found it hard to adhere to published or "list" rates as long as agencies were obliged to bargain with clients over the amount of the commission to be charged. Similarly, to the extent that agencies could free themselves of price pressure from clients, publishers could expect to be relieved of agency pressure for similar concessions. It seems reasonable to suppose, therefore, that a basic consideration in the movement by publishers to channel the sale of advertising space through advertising agencies using "open-contract" or "fixed-fee" arrangements was the desire of the publishers to stabilize their own rates.

For all these reasons, the action of the Curtis Publishing Company in 1901 was a milestone in the popularization of the "open contract," i.e., the strange arrangement under which the agency serves the advertiser but the publisher (or media owner) fixes the amount of the agency commission. The same policy with respect to agency compensation has since been adopted by the owners of both outdoor and broadcast advertising media. The *American Newspaper Publishers' Association*, the *Periodical Publishers' Association*, the *National Association of Broadcasters*, and similar organizations of media owners have established general standards which agencies are expected to meet in order to obtain the recognition

which entitles them to receive commissions. The usual stipulations are that the agency should have a satisfactory financial condition, should be independent and impartial with regard to both media and clients, *should not give rebates or otherwise discount the rates established by media owners*, and should be technically competent to provide the advertising service which advertisers need.

While publishers were thus working to bring about a more satisfactory pattern of business conduct in relation to agencies and advertisers, both of the latter groups were also at work. With a nucleus of a dozen national advertisers, the *American Advertisers' Association* was organized in 1899 and was active as "the watchman of the advertisers' rights and privileges,"⁸ particularly in respect to urging greater accuracy in publishers' circulation statements. "Make every dollar spent in advertising bring back greater returns"⁹ was the slogan of yet another group, the *Association of National Advertisers*, which was organized in 1910.

A third group at interest, the general advertising agencies, became organized on a national scale in 1916 with the *Affiliated Associations of Advertising Agencies*, a composite of regional advertising agency clubs. In 1917, this organization became the *American Association of Advertising Agencies*, or "4 A's."¹⁰ Announced aims of this organization were:

1. To foster, strengthen, and improve the advertising agency business.
2. To advance the cause of advertising as a whole.
3. To give service to members — to do things for them which they cannot do for themselves or which can be done better or less expensively through the Association.

In pursuit of these goals, the 4 A organization developed "agency service standards" (1918); standard forms for publisher rate cards (1919); "qualifications for membership" (1920), designed to insure that constituent agencies maintain high standards of technical competence, financial reliability, and ethical conduct; and "standards of practice" (1924), designed to eliminate "unfair" modes of competition.

A rather exclusive organization, the 4 A's initial membership of 111 agencies comprised only about 10 per cent of the agencies existing around 1917.¹¹ This proportion has continued, with the 1956 membership being 323 as compared to some 3,268 advertising agen-

⁸ Presbrey, *The History and Development of Advertising*, p. 544.

⁹ *Ibid.*, p. 545.

¹⁰ Newcomb Cleveland, "Agency Association Progress in the United States," *The Advertising Yearbook for 1924*, John Clyde Oswald, ed. (New York, 1925), pp. 92-93.

¹¹ *Crain's Market Data Book and Directory*, 1923 (Chicago, 1924), p. 5.

cies having a regular payroll.¹² Although "size" is not a prerequisite to membership, it is significant that in 1957 the Association estimated that its member agencies placed well over two thirds of the national advertising volume.

The first national merger of publishers, advertisers, and general agents culminated in 1905 in the AAC of A (Associated Advertising Clubs of America, now known as the Advertising Federation of America).¹³ It soon became apparent to the officers of the new organization that the principal threat to advertising as a social force was the prevalence of hypocrisy and deceit, extending from deliberate misrepresentation of circulation on the one hand to immoral advertising appeals and fraudulent misrepresentations of products on the other. In the public's mind, all the participants — advertiser, agency, and publisher — were tarred with the same brush. Though many individual advertisers, agents, and publishers had taken firm stands against these unsavory practices, no concerted action had yet been taken when the AAC of A was formed in 1905. At each succeeding annual meeting of the Association, the same problems of unethical conduct arose with increasing urgency — largely because numerous exposé-type articles were rapidly making dishonesty in advertising a public issue.¹⁴

As the crusading spirit for truth in advertising mounted, practical-minded men sought means of giving the campaign the support of law. Such a man was John Irving Romer of the advertising journal, *Printers' Ink*. Covering the 1911 convention of the AAC of A, he was caught up by the spirit of the convention; and, when he returned to New York, he retained Harry D. Nims, of the New York bar, to investigate the existing laws against fraudulent representations and to draft a model law which would effectively deter false and misleading advertising. At that time only two states of the Union, New York and Massachusetts, had laws designed for this specific purpose, and, as there was only one successful prosecution on record, even they seemed inadequate.¹⁵ In November, 1911, *Printers' Ink* published Romer's proposed model statute and recommended that the AAC of A support its enactment in the several states. Romer also proposed that each of the associated clubs organize vigilance committees for the purpose of investigating misrepresentations alleged to exist in the advertising originating in their cities and to cooperate with local

¹² *Printers' Ink Supplement, Advertisers' Guide to Marketing for 1957* (New York; August, 1956), p. 114.

¹³ *The Advertising Yearbook for 1924*, p. 470.

¹⁴ H. J. Kenner, *The Fight for Truth in Advertising* (New York, 1936), pp. 13-14.

¹⁵ *Ibid.*, p. 27.

law-enforcing agencies in correcting false advertising practices. The *Printers' Ink Model Statute*, subsequently widely adopted in the United States, reads:¹⁶

Any person, firm, corporation, or association who, with intent to sell or in any wise dispose of merchandise, securities, service, or anything offered by such person, firm, corporation, or association, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly, to be made, published, disseminated, circulated, or placed before the public, in this state, in a newspaper or other publication, or in the form of a book, notice, handbill, poster, bill, circular, pamphlet, or letter, or in any other way, an advertisement of any sort regarding merchandise, securities, service, or anything so offered to the public, which advertisement contains any assertion, representation or statement of fact which is untrue, deceptive or misleading, shall be guilty of a misdemeanor.

The first vigilance committee was formed by the Advertising Club of New York City a month later, and within six months a considerable number of prosecutions had been initiated.¹⁷ Advertising clubs in other cities quickly followed suit and at the annual convention of the AAC of A in December, 1912, many examples of successful action were reported. These reports show that, once begun, the efforts of the vigilance committee went forward at a rapid pace and were conducted with true missionary zeal.¹⁸

Numerous titles, such as "Vigilance Bureau," "Censor Committee," etc., were used until 1916 when Arthur M. Sheldon is reputed to have coined the name "Better Business Bureau."¹⁹ More truly reflective of the broad nature of the program to combat dishonesty in advertising than the earlier variations, the new name as well as the work initiated by the National Vigilance Committee of the AAC of A quickly spread and within a few more years most major cities had Better Business Bureaus established on a paid-manager basis. But "Truth in Advertising," by now the motto of the AAC of A, meant more than the policing of advertisements; rates, circulation figures, and other information essential to objective evaluation of alternative advertising media were still subject to much the same kind of distortion that had stimulated the creation of the *Printers' Ink Model Statute* and the vigilance committees. At the next meeting of the

¹⁶ *Ibid.*, pp. 27-28.

¹⁷ *Ibid.*, p. 31.

¹⁸ See *Eighth Annual Convention of the Associated Advertising Clubs of America* (Dallas, 1912), p. 134.

¹⁹ Kenner, *The Fight for Truth in Advertising*, p. 61.

AAC of A (December, 1913), a resounding declaration of principle endorsing truth in all business dealings was passed. The keystone pledge of this new statement was:²⁰

We believe in truth, not only in the printed word, but in every phase of business connected with the creation, publication and dissemination of advertising.

The statement then proceeded to apply the principle of "Truth in Business" to the critical problem of establishing accurate and readily comparable statements of circulation:²¹

We believe that the present chaotic multiplicity of methods of arriving at verification of circulation statements are not only confusing but inadequate, and that the time for radical revision of these methods and for standardization of statements is the present.

We believe in cooperation with other agencies now at work on this problem, especially in the plan of the central bureau of verification which has already been initiated by some of the organizations represented in this commission, and request the executive committee to proceed therewith.

The foregoing reference to "The central bureau of verification" was in anticipation of the merger of the Bureau of Verified Audits (New York) and the Advertising Audit Association (Chicago).²² Both auditing organizations had been formed in the spring of 1913, the New York group under the leadership of O. C. Harn, then advertising manager for the National Lead Company, and the Chicago group led by Stanley F. Clague, then president of the Western Advertising Agents Association. The resultant organization became the Audit Bureau of Circulations (ABC) at Chicago in May, 1914, by a convention representing 74 national advertisers, 49 advertising agencies, 338 newspapers, 27 magazines, 52 farm publications, and 55 business papers.²³ A board of directors of 21 members was authorized with the following composition: 11 advertisers, 2 advertising agents, 2 newspaper publishers, 2 magazine publishers, 2 farm publication publishers, and 2 business paper publishers. Standard circulation statements and audit forms were soon agreed upon, and information blanks were sent to publisher members on July 29, 1914. Auditing commenced September 21, 1914, and the first annual report of the ABC (June 15, 1915) declared that 321 audits had been completed

²⁰ *Ibid.*, p. 274.

²¹ *Ibid.*

²² For details of this merger and of the underlying organizations, see: William H. Boynton, *Audit Bureau of Circulations* (Chicago, 1949); Presbrey, *The History and Development of Advertising*; Hower, *The History of an Advertising Agency*.

²³ Boynton, *Audit Bureau of Circulations*, pp. 8 f.

and 63 were in progress. The subsequent expansion of membership and the composition of the membership in 1957 follow: ²⁴

ABC MEMBERSHIP: UNITED STATES AND CANADA

1914 (Charter Membership List) . . .	499
1919	1,221
1924	1,780
1929	1,981
1934	1,722
1939	2,006
1944	2,326
1948	3,232
1957	3,859

**COMPOSITION OF ABC MEMBERSHIP:
UNITED STATES AND CANADA: 1957**

Division	Per Cent
National Advertisers	20
Local Advertisers	1
Advertising Agencies	7
Associate Members	1
Publishers	71
Total	100

The leaders of the merged organizations, O. C. Harn and Stanley Clague, continued as the outstanding personalities of ABC — Harn as president (1920–1930) and Clague as managing director (1920–1927).

It would be difficult to overestimate the significance of the ABC to advertising as a profession and as a social influence. Frank Presbrey, writing in 1929, said: ²⁵

From ascertaining merely the net paid circulation of the newspaper or periodical, the audit of the ABC has developed into a detailed analysis which gives the geographical distribution, the character of the circulation as indicated by various methods used in obtaining it, the number in arrears, and, in the case of business papers, the occupation of subscribers.

²⁴ *Ibid.*, pp. 11–12.

²⁵ Presbrey, *The History and Development of Advertising*, p. 530.

Constant enlargement of scope is furnishing additional information on the character of circulation and providing further means for judging its quality.

Organization of the Audit Bureau of Circulations was an epoch-making event. The ABC has been a chief contributory factor in stabilizing advertising. Membership is almost obligatory on a publication because advertising agents and advertisers have learned by experience that a publication which will not submit an audited statement of its circulation seldom is worthy of consideration.

With the ABC launched, the "Truth in Advertising" campaign being promoted by vigilance committees in major cities throughout the United States and Canada, and the *Printers' Ink Model Statute* becoming a reality in many states, the 1914 convention of the AAC of A turned its attention to formulating standards of practice for advertisers and publishers. Among the resolutions adopted were several bearing on advertising rates and rate information.

The magazine publishers, for example, committed themselves "to maintain an absolute uniformity of advertising rates" which were charged to advertisers and advertising agents while the newspaper publishers promised "to maintain uniform rates, according to classifications, and to present those rates as far as possible, in a uniform card."²⁶ As already noted, achievement of the latter objective, standardized rate cards, received further impetus in 1919 when the 4 A's adopted model rate cards (Exhibit 1) and aggressively urged their use by publishers.

Thus, with newspaper advertising rates fairly well in keeping with rate-card listings,²⁷ magazine rates quite consistent, a source of accurate circulation data in existence, and some uniformity of rate cards being achieved, the time was ripe for a service such as the present SRDS to evolve. In retrospect, two existing types of organizations appear likely to have recognized the opportunity and to have instituted a comprehensive rate and data service. The first of these was the ABC itself. Since this cooperative organization was in the process of collecting circulation and related information from member publishers, it might logically have extended its scope of operations. But, if the ABC (or a similar joint effort of advertisers, agencies, and publishers) did not exploit the opportunity, then one of the several current publishers of newspaper directories might have been expected to expand and modify its editorial coverage.

A review of the convention literature of the AAC of A for the

²⁶ Kenner, *The Fight for Truth in Advertising*, p. 277.

²⁷ Interview of E. Ross Gamble, treasurer, Leo Burnett Advertising Agency, April 29, 1958.

EXHIBIT 1

THE FIRST "STANDARD RATE CARD" OF THE WASHINGTON, D. C.

Evening and Sunday Star

ISSUED NOV. 15, 1918

Washington, D. C.

The Evening and Sunday Star

Published
Evening and
Sunday Mornings
State Card No. 1
Issued Nov. 15, 1918
in Effect Jan. 1, 1919

1—GENERAL DISPLAY—FLAT RATE

No Time or Space Discount

The Evening Star - 17c a line

The Sunday Star - 13c a line

Photographs Picture Section—15c a line.

(See Special rate Card.)

PREFERRED POSITIONS

When available—top of column next to reading matter 1½c. per line additional; next to and following reading matter 1c. per line additional; next to reading matter 2½c. per line additional. No position advertisements accepted less than 25 lines, single column.

Advertisements will be accepted when space is available, to run on page 2, or 3 at 5c per line additional; page 4 or 5, 2½c. per line additional, and on last page 50c. additional to advertising rates.

BROKEN COLUMNS: No extra charge for broken columns. Double-column advertisements must not be less than 45 lines deep; 2 columns, 75 lines deep; 4 columns, 120 lines deep; 6 columns, 150 lines deep; 8 columns or more, 180 lines deep.

2—CLASSIFICATIONS

Classified Advertisements such as Agents, Salesmen, Help Wanted, Business Opportunities, etc., 3 cents a word each insertion, 15 words minimum charge.

Resorts, Educational
Steamships, Real Estate,
etc.

RATE PER LINE
(6 lines min.)
1 time, 17c; 2
times, 16c; 3
times, 15c; 4
times or more,
14c; 1 month, 50
cents; 3 months,
1.50; 6 months,
2.00 a line
advertising,
15c.

(Display Advertising at Display Rates)

3—READING NOTICES

Per Agate Line

Reading notices in body type..... \$1.00

Reading notices in agate type..... .60

No readers accepted for first page.

Imitation reading matter within a border—25c a line.

(All reading notices must be marked "Advertisement.")

4—COMMISSION AND CASH DISCOUNT

Agency Commission, 12 per cent.

All transient advertisements cash.

Cash discount, 3 per cent.

Cash discount date, 20th of month following insertion.

5—MECHANICAL REQUIREMENTS

Width of column—12¼ emspica.

Depth of column—305 lines,

21¼ inches. Eight columns to

the page.

Base of measurement is solid

agate—14 lines to the inch.

Display ads must occupy not

less than 14 lines—1 inch.

Can use mats.

Half-tone screens required, 65.

6—CIRCULATION

Date of Statement

For Period Ending

6 months ending

Sept. 30, 1918

Circulation

Daily, 95,911

Sunday, 74,319

A Member of the A.

B. C.

7—MISCELLANEOUS

Advertising subject to approval.

Established 1852.

Subscription Price—Daily, 2c per copy, \$4.00

year.

Sunday, 5c per copy, 2.40 year.

Evening Star Newspaper Co., Publishers.

Frank B. Noyes, President.

Fleming Newbold, Business Manager.

New York Representative, Dan A. Carroll,

Tribune Bldg.

Chicago Representative, J. E. Lutz, First Nat'l

Bank Bldg.

(Prepared in conformity with "Standard Rate Card" of American Association of Advertising Agents)

Reproduced from Jason Rogers, Building Newspaper Advertising (New York, 1919), p. 96c.

critical years 1914–1919 reveals no interest in having the ABC or a similar jointly sponsored body perform this service. This inaction may have resulted from a failure to perceive the need for cooperative effort in the area of media rates and data. A more likely explanation, however, is that the conflicting interests of some 15 to 20 existing media directories, most of them "annuals" and all of them connected

with advertising agencies, posed a formidable obstacle to any plan which would almost certainly eliminate their *raison d'être*. Since these media directories are in a very real sense the progenitors of both the ABC and SRDS, their development up to 1919 is of considerable import to this study.

THE RISE AND FALL OF MEDIA DIRECTORIES 1856-1919

Typical characteristics of the score or more media directories published in the United States between 1856 and 1919 were: annual publication; uniform failure to obtain a substantial degree of media cooperation in respect to accurate and consistent circulation data; intimate connection with an advertising agency; and a reputation with media publishers for soliciting advertising with the threat, express or implied, that an agency's advertising would be placed elsewhere if the publisher did not purchase space in the directory.

Probably the first national media directory was *The Newspaper Record*, compiled and published by Lay and Brother, manufacturers of *Printers' Ink*, Philadelphia, 1856. The publication purported to contain "... a complete list of newspapers and periodicals in the United States, Canadas, and Great Britain, together with a sketch of the origin and progress of printing with some facts about newspapers in Europe and America, by W. T. Coggeshall, State Librarian of Ohio." The publisher noted:²⁸

Nearly four years since, we commenced, in this city, the publication of *The Ink Fountain*, a quarterly newspaper, devoted to the interests of printers, and intended to be a medium of communication between the manufacturer of printers' materials and the consumer. Our effort was appreciated, particularly by the newspaper press, and our exchange list became large and valuable. We then began to issue in its columns, in succeeding numbers, a list of newspapers, such as came within our ken, and as this grew and became known, it was much sought after, because it was the only list in this country that approached correctness. Urged by the demand, we determined to put this list into book form, and for some months, have been taking measures to arrange a complete list of newspapers in the United States and Canadas. By many representatives of the press, we have met with encouragement and assistance, and to such, we render our earnest thanks, but, in many more instances, a contemptuous silence was our only reply to inquiries.

The "contemptuous silence" came as a bitter disappointment and forced an alteration in plans:²⁹

²⁸ Lay and Brother, *The Newspaper Record* (Philadelphia, 1856), p. ix.

²⁹ *Ibid.*, p. x.

The original plan was to give the name of every newspaper, its editor and proprietor, politics, period of issue, circulation, age, and any interesting information that might reach us, but after a stubborn trial of all the means in our power we were at length compelled to alter the original idea and give simply the name of periodicals and place of issue.

The Index to Advertisements indicates that *The Newspaper Record* was intended primarily as a means of promoting the sale of printers' supplies and that its distribution was mainly among newspaper publishers. Two pioneer advertising agencies, Geo. A. Crofut and S. M. Pettengill and Co., also ran advertisements, the copy of which carried an appeal to newspapers to appoint them as agents in New York and Boston. There is no suggestion that Lay and Brother intended the *Record* as a continuing publication, any such notion probably having been dispelled by the lack of cooperation just noted.

Another early effort at collecting media information was *The American Newspaper Directory*, compiled by Daniel J. Kenny.³⁰ It, too, suffered from a paucity of information, giving only the location, frequency, subscription price, and publication office of the media. Interestingly enough, the media advertisements which it carried stressed editorial content and subscription price; nowhere in the book was there any information intended specifically for one interested in placing advertising. Like the preceding directory, this publication does not appear to have been repeated on a regular basis. No other efforts at directory publication seem to have occurred until 1869, when *Rowell's American Newspaper Directory* appeared. (See Exhibit 2.)

Rowell's publication was apparently the first directory to be designed as a service to advertisers and the first to be published on a regular basis — it continued as an annual or as a quarterly (as a quarterly from January, 1878, to October, 1879, and from June, 1897, to December, 1901; otherwise as an annual) under the same name until 1908, when it merged with another directory, *The American Newspaper Annual*, published by N. W. Ayer & Son since 1883. The consolidated directory was continued with the title *American Newspaper Annual & Directory* (now *N. W. Ayer & Son's Directory of Newspapers & Periodicals*).

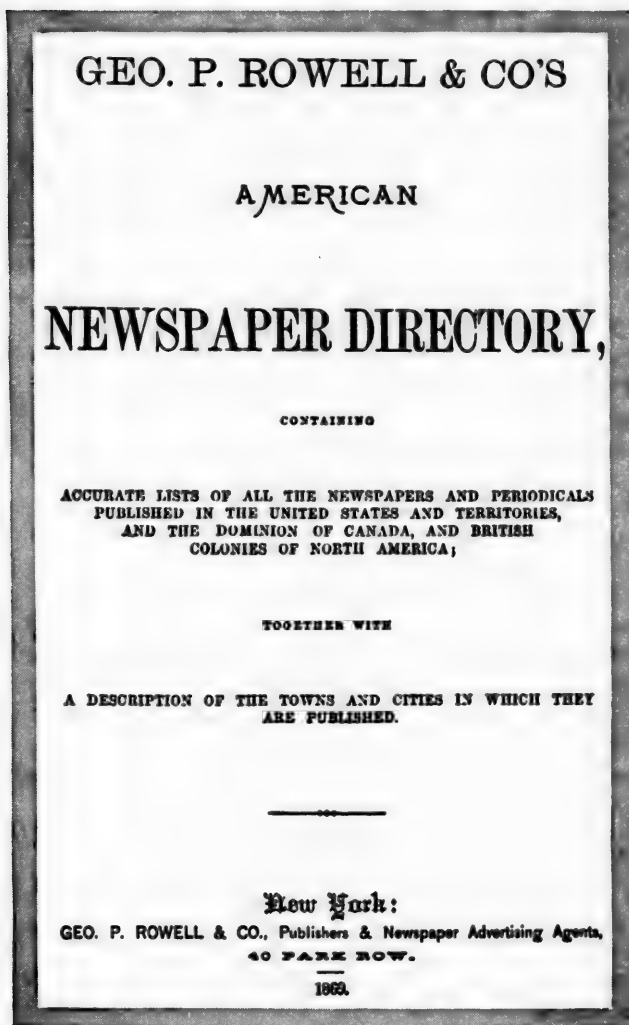
Rowell's account of his difficulty in obtaining accurate media information and the motives for compiling and publishing his directory is contained in the Preface to the first edition (1869). It indicates that this, like the two previous efforts, was largely unsuccessful in

³⁰ Daniel J. Kenny, *The American Newspaper Directory* (New York, 1861).

EXHIBIT 2

TITLE PAGE OF THE FIRST ISSUE OF GEO. P. ROWELL'S

American Newspaper Directory (1869)



Reproduced from Geo. P. Rowell & Co., *American Newspaper Directory* (New York, 1869), Title Page.

obtaining the cooperation of newspaper publishers. In addition, the Preface provides a valuable commentary on advertising conditions and practices of the day, the "service" character of the Rowell agency, and the missionary zeal of its founder. These were all aspects of the special quality which had assisted Rowell's agency to grow to such prominence since its founding only four years earlier; i.e., its founder's concept of agency responsibility to advertisers.

The Rowell *Directory* was intended as an annual supplement to another Rowell publication, *The Advertisers' Gazette*. Initiated by Rowell in November, 1866, as a monthly publication, each issue of the *Gazette* had contained a list of newspapers for a different geographic section of the United States "until every state had appeared, together with new newspapers, consolidations, suspensions, changes, removals, etc."³¹ These lists, afterward printed in pamphlet form, "secured a large sale among advertisers, and obtained no little notoriety."³² The latter arose from the fact that, until this time, newspaper agents had considered their "lists" part of their stock in trade, something to be guarded carefully and not to be shared with the advertiser.³³

The lists in Rowell's *Gazette* gave only the media name and the place of publication, however, and there proved to be a strong demand for further information. Encouraged by the response, Rowell distributed more than 5,000 information blanks to publishers "with a particular request that they be filled out and returned, in order that their papers might be properly presented in the forthcoming directory,"³⁴ but less than 500 replies were received. Rowell next placed the task in the hands of a full-time editor, the eventual result of whose labors was in the 1869 *Directory*.

The 1869 *Directory* consists of a listing of publications, classified by place of origin, together with "a description of the towns and cities in which they are published."³⁵ Media information included frequency of publication, page size, subscription price, date of establishment, editor, publisher, office address, and, perhaps most important of all, "claimed" circulation. The distress of the agents at having Rowell publish a complete newspaper directory was, for reasons that have been noted, rather great. This was as nothing, however, compared to the anguish of publishers:³⁶

³¹ George P. Rowell, *American Newspaper Directory* (New York, 1869), Preface.

³² *Ibid.*

³³ Presbrey, *The History and Development of Advertising*, p. 275.

³⁴ *Ibid.*

³⁵ *Ibid.*

³⁶ *Ibid.*

But criticism from agents was a wee small sound compared with the thunder of denunciation that came from newspapers that found their circulation ratings in the directory were much below their own claims. With each annual republication of the directory through the years there was a new storm of violent dissent from newspaper publishers.

Beginning with the 1870 quarterly issues, publishers were encouraged to supplement the brief standard listings, at a fee, and such material was italicized to distinguish it from the editorial matter. In addition, publishers' advertisements were solicited and, judging from the fact that even the first volume (1869) carried 130 pages of such advertising as opposed to 222 pages of editorial matter, Rowell's *Directory* was an immediate financial success. The 1870 *Directory* was supplemented by the *American Newspaper Rate-Book*, "containing advertising rates of leading newspapers arranged with an index for the convenience of advertisers."³⁷ Actually, this was not a rate book in the present sense, for the rate information was entirely contained in advertisements. The *Rate-Book* was subsequently combined with the *Directory*, and by 1873, the volume of media advertising had grown to 332 pages (as compared to 264 pages of editorial matter). It is of interest that, during most of its existence, the *Directory* adhered to this scheme of providing rate information only through paid advertisements.

Other service features which were added as the *Directory* developed were state market maps, census data, the placement of publishers' advertisements adjacent to specific listings, and an indication of the "quality" of the circulation. (See Exhibit 3.) The latter feature was introduced in 1889 and was purported to designate papers "which circulate among a prosperous class, possess a high proportion of paid-up subscribers . . . [and have] a long-established hold upon the community,"³⁸ the combination of which attributes cause advertisers to "value this paper more for the class and quality of its circulation than for the mere number of copies printed."³⁹ Papers which met the *Directory's* quality criteria were designated by a "bull's eye" (⊙). This and similar efforts to obtain and appraise circulation data continued during the entire 40 years of the *Directory's* publications and, from the beginning, incurred publisher hostility which made it difficult to solicit advertising. Illustrative of the problems confronting the *Directory's* editors is this correspondence with Rowell's advertising manager for the 1898 issue:⁴⁰

³⁷ Rowell, *American Newspaper Rate-Book*, 1870, Frontispiece.

³⁸ Rowell, *American Newspaper Directory*, 1898, p. 9.

³⁹ *Ibid.*

⁴⁰ *Ibid.*, p. 1342.

EXHIBIT 3

CIRCULATION VERIFICATION BEFORE ABC

Those buying advertising space in
The Milwaukee Journal at 9c. are
certainly getting heaping measures
of value.

(The bulk of 9c. rate: 44,000 net paid)

September net paid
circulation of The
Milwaukee Journal

84,256

(Not one "war rate" printed during September)

The nine cent charge continues
until October 1, 1915, to all
advertisers alike; after October
1, 1915, ten cents.

THE MILWAUKEE JOURNAL

O'MARA & ORMSBEE, Inc.

Foreign Advertising Representatives

CHICAGO

NEW YORK

10

Newspaperdom

October 15, 1914

UNINTERRUPTED GROWTH!

Fifth U. S. Post Office Statement—NET PAID CIRCULATION 56,465

P. O. STATEMENT
No. 1

OCTOBER 2, 1913—ITEM NET PAID 41,750

P. O. STATEMENT
No. 2

APRIL 2, 1913—ITEM NET PAID 41,000

P. O. STATEMENT
No. 3

OCTOBER 2, 1913—ITEM NET PAID 51,000

P. O. STATEMENT
No. 4

APRIL 2, 1914—ITEM NET PAID 51,250

P. O. STATEMENT
No. 5

OCTOBER 2, 1914, ITEM NET PAID 56,465

The New Orleans Item

"Nothing Succeeds Like Circulation and SERVICE"

Publishers' sworn statements, Rowell's *Directory*, and United States "Post Office Statements" (certification of number of copies of a given issue received for mailing) were the advertiser's principal means of verifying circulation claims. In the October 15, 1914, issue of *Newspaperdom*, a trade publication, only a few publishers followed the example of *The New Orleans Item*. More typical was the wholly unsubstantiated circulation claim made for the *Milwaukee Journal* by its agents.

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The manager of the *Telegraph* (Daily *Telegraph*, Nashua, N.H.) wrote again to the advertising manager of *The American Newspaper Directory* thus:

"I would like to know what rating you are going to give us in the December edition of the *American Newspaper Directory*. We informed you that our circulation was 3,200 daily and 1,800 weekly, and I see you have given us an 'I' rating (exceeding 1,000 circulation). I can see no reason why you should not give us the 'H' rating (exceeding 2,250 circulation). Now, if we cannot have a just rating in the *Directory*, it will not be of any advantage to us to place an ad in the same. I want to know what you propose to do about it, and I want it in black and white. . . . If we are not to have a just rating, I will cancel all consideration that I have made with you in this matter."

At the same time that the *Directory's* editors were endeavoring to improve the quality of the information which it carried, the *Directory's* advertising volume was steadily declining. By 1898, the major metropolitan newspapers, formerly the principal advertisers, had withdrawn "en masse," in what seems to have been a virtual boycott. It seems probable that this abandonment of the *Directory* was the result of Rowell's missionary zeal in seeking to report accurate circulation data and to "rate" publications according to the "quality" standards just noted. Withdrawal of advertisements was a serious matter for the *Directory*, not only because of the advertising revenue forgone, but also because the supplementary media and market information carried in the advertisements, especially advertising rates, were lost to subscribers and probably resulted in a declining subscription list. In spite of these difficulties, however, the *Directory* survived for nearly 40 years, and there is little doubt that Rowell's pioneer efforts to provide advertisers with media market information, circulation, and appraisals of "quality" constituted a tremendous contribution to the advertising profession and, albeit somewhat less directly, to publishers of advertising media.

The *Directory* was not Rowell's only pioneer contribution to advertising publication, however. As already noted, the agency had begun to publish *The Advertisers' Gazette*, prior to 1869,⁴¹

an advertising sheet . . . devoted to information of interest to advertisers; containing the experience of successful advertisers, together with hints and instructions which will enable inexperienced persons to avoid expenditures which will not prove remunerative; also, a catalogue of newspapers which are especially recommended to advertisers as giving the greatest circulation, value and influence in proportion to the prices charged.

Rowell also published *The American Newspaper Reporter and*

⁴¹ Rowell, *The Advertisers' Gazette*, 1873, p. 159.

Printers' Gazette (1871–c1888), a weekly house organ distributed to over 7,000 publishers and printers,⁴² and *The Reporter*. The latter was succeeded by *Printers' Ink* (1888),⁴³ a journal devoted to the advancement of the "Art of Advertising" and addressed to "Advertisers, and not newspapermen."⁴⁴ The new journal quickly became the outstanding trade publication in the advertising field, and did much to raise the status of advertising.⁴⁵

"... [*Printers' Ink*] constitutes the largest single influence for betterment of methods and the spread of information on every phase of advertising. . . . *Printers' Ink* is George P. Rowell's monument. . . .

If imitation is the surest proof of success, then Rowell's 1869 *Directory* must indeed be judged to have scored a "bull's-eye." The first such recognition came within a year with the *Advertiser's Hand-Book*, a publication of Rowell's principal rival, S. M. Pettengill and Co., Newspaper Advertising Agents, New York (founded in 1849). Other agencies to follow suit included C. A. Cook & Co., Chicago (*United States Newspaper Directory*, 1876–c1895); N. W. Ayer & Son, Philadelphia (*American Newspaper Annual*, 1880–1908, *American Newspaper Annual & Directory*, 1909–); Lord & Thomas, New York (*Pocket Directory of the American Press*, 1886–c1920); Charles H. Fuller Company, Chicago (*Advertisers' Directory of Leading Publications*, 1890–c1920); H. W. Kastor & Sons, St. Louis and Chicago (*Kastor's Newspaper & Magazine Directory*, 1895–1930); and Mahin Advertising Agency, Chicago (*Mahin's Advertising Data Book*, 1900–1917).

Early directories in other English-speaking countries are *The Newspaper Press Directory and Advertisers' Guide*, 1846– (Benn Brothers, Limited, London, England) and *Lydiatt's Book*, 1914–1930 (W. A. Lydiatt, Toronto, Canada). *Lydiatt's Book* was outstanding in several respects, and was, in many ways, quite similar to the form of the early SRDS publications. It was independent, i.e., not associated with any advertising agency and, by comparison with its contemporaries, it was exceptionally complete.

All of these directories had a common purpose – to provide information useful in the performance of the media-buying function. They also had a similar format – rates, mechanical data, and market information were organized by states and by population centers within states. The data were usually presented in a form similar

⁴² Rowell, *The American Newspaper Reporter and Printers' Gazette*, 1873, p. 148.

⁴³ Presbrey, *The History and Development of Advertising*, pp. 276, 278.

⁴⁴ Rowell, *American Newspaper Directory*, Dec., 1898, p. 687.

⁴⁵ Presbrey, *The History and Development of Advertising*, p. 278.

to the conventional newspaper column. A few publications, notably *Lydiatt's*, used a tabular form. The latter facilitated comparison of data for various publications, but was more expensive to set and was less flexible in that it was difficult to vary the amount and type of information supplied.

It is also evident that each publisher was continually searching for additional services which would make his book more popular — supplementary market data, maps, studies of rate trends, and advice regarding the preparation of copy for the printer being among the types of editorial matter included.

As already noted, an important or even critical aspect of these directories was the advertising which they carried. As early as 1873, it will be recalled, Rowell's *Directory* contained 332 full pages of publisher advertising in a book which totaled 596 pages. Much of this advertising had been "purchased" from Rowell's agency by granting that agency rights to advertising space in the purchaser's publication. This practice of exchanging newspaper space for directory space was typical in the United States where all directories from 1869 to 1917 were either directly or indirectly owned and operated by advertising agencies. The typical attitude of publishers toward such directories is suggested by a comment which Jason Rogers (publisher of the *New York Globe*) made in 1919:⁴⁶

The so-called newspaper directory, the first of which to become an important factor being Rowell's (now N. W. Ayer's *American Newspaper Directory*), was a source of annoyance to publishers and a means of graft for the advertising agents. Every year the publishers were urged to take a page in the directories at high rates, this charge to be deducted from business given them.

The agents in many cases went so far as openly to state that they would give preference to the papers giving business to their directories. This, of course, caused resentment among the newspapers, which refused to be blackmailed, and advertisers, whose money was spent to feather the agents' nests and not where it would do the advertiser the most good.

Nor does Rogers' experience as a publisher seem to have caused him to overstate the case against agency directories. Frank Presbrey, himself in the agency business, speaking of earlier advertising practices before the Seventh Annual Convention of the Associated Advertising Clubs of America (1911), said:⁴⁷

When the time [for advertising agencies] to settle with the publishers

⁴⁶ Jason Rogers, *Building Newspaper Advertising* (New York, 1919), p. 46.

⁴⁷ *Proceedings of the Seventh Annual Convention of the Associated Advertising Clubs of America*, 1911, p. 188.

came around, the majority of publishers were lucky if they got much except type, ink, or pages in some newspaper directory.

It may be noted that Presbrey's reference to agencies paying publishers in type or ink reflects another agency practice that was nearly universal prior to 1900, i.e., the sale of printers' supplies. Some large agencies, such as Rowell and Ayer, even owned manufacturing facilities for type, ink, or other printers' items. Frequently, agencies exerted pressure on publishers to purchase these items or to accept them in lieu of cash payment.⁴⁸

The strength of publishers' feelings toward newspaper directories is also suggested by the fact that the eminently respectable agency of N. W. Ayer & Son entirely eliminated advertising from its directory in 1914 in an effort to avoid criticism.⁴⁹ While such drastic action may have been successful in removing the stigma attached to a directory published by an agency (or subsidiary of an agency), it was at the expense of a considerable loss in revenue and could not help but affect the variety and quality of services rendered by the publication.

The foregoing account suggests that agency-sponsored directories of newspapers and periodicals were a prominent aspect of the advertising scene in the United States for nearly a half century following 1869. Also clear is the fact that these sources of media information labored under distinct disadvantages: one was the ubiquitous agency sponsorship which was viewed with a jaundiced eye by publishers, a second was that publishers gave considerably less than full cooperation in respect to requests for circulation statements, advertising rates, and other data essential to the media-buying function. With the advent of the ABC (1914) and with some progress being made toward stabilized advertising rates and standardized rate cards, the stage was set for a new type of service — a service which was not the pawn of some advertising agency or other special interest group, and which could have as its primary objective the provision of complete, timely, and accurate media information to purchasers of advertising space.

THE BEGINNING OF INDEPENDENT MEDIA-MARKET SERVICES

Less than three years after the inauguration of the ABC, a new type of media-market service, *Barbour's Advertising Rate Sheets*, came into being. Its founder, Justin F. Barbour, had seen the need

⁴⁸ Hower, *History of an Advertising Agency*, p. 84; Rowell's *Directory*, 1873, pp. 584, 594.

⁴⁹ Hower, *History of an Advertising Agency*, p. 86.

for the service while he was still employed as a space buyer by Husband and Thomas, Chicago:⁵⁰

Part of my work involved the use of rate cards. It was here that I first realized the need for complete, up-to-date files. At this time the cards had no uniform arrangement for the information essential to the space buyer. I conceived the idea of a uniform arrangement of information on letter-sized paper that could be filed in a loose-leaf book. To accomplish this, all that was necessary was to gather the rate cards and rearrange the information so that it was standardized.

The service started sometime in the latter part of 1916; by 1917 we had organized sufficient information to commence filling the early subscriptions. As we received new rate cards, we added to the scope of our service.

In addition to the information supplied by the publishers' rate card, Barbour added population data, retail sales, and other quantitative material likely to be of use to the media buyer. Moreover, *Barbour's Rate Sheets* were always "current." Each month, publishers were asked to review a copy of the rate sheet for accuracy, and new copies were sent to all subscribers for placement in the latter's loose-leaf binders as often as changes in rates or other vital data occurred. As a check on the publishers (who sometimes were not at all cooperative), Barbour also arranged to receive notices of rate changes from space buyers in several large advertising agencies.

Beginning with the Newspaper Section, the Service expanded, so that by the end of 1918 it included a Magazine and Farm Paper Section and also a Trade Paper Section. To preserve its independence, no advertising was accepted, subscription revenue being the sole source of income. The cost to subscribers was initially set at \$50 semiannually. Barbour's subscribers as of June, 1919, the date that SRDS entered the field, numbered approximately 250, most of them large advertising agencies.

THE FOUNDING OF STANDARD RATE AND DATA SERVICE

The same opportunity which had appealed to Justin F. Barbour also came to the attention of two young men engaged in the advertising business in Detroit and Toledo. They were Walter E. Botthof, Detroit representative of G. Logan Payne Company, a firm which solicited advertising for some 75 newspapers, and Alvin E. Beirnes, space buyer for the Stalker Advertising Company, Toledo, Ohio. Botthof and Beirnes approached the opportunity with dis-

⁵⁰ Interview of Justin F. Barbour, Barbour's Investment Service, April 8, 1958.

tinctly different objectives, however. Their idea was to provide the *Standard Rate and Data Service*, a media-information publication which would be priced at \$30 a year for 12 monthly issues, a price so reasonable that the *Service* would be subscribed to by virtually every advertising agency in the United States. By thus "saturating" the market, they hoped to attract advertisements from media publishers, and this advertising income would, in turn, assist in making the enterprise profitable in spite of its relatively low subscription price.

In addition to their departure from the Barbour format in respect to advertising policy and price, the new service Botthof and Beirnes envisaged would be published in book form at frequent intervals. This innovation would eliminate the necessity of filing rate sheets, a major problem for subscribers to Barbour's service.

Although the service conceived by Botthof and Beirnes was not identical to that of Barbour, the two were sufficiently similar to create a rivalry. It was to be expected that a struggle for supremacy would ensue. In this struggle, Barbour's had the advantage of priority and an entrenched position with influential agencies. Furthermore, Barbour's subscription list of around 250 in June, 1919, though not large in relation to the potential market (approximately 1,000 advertising agencies plus newspaper representatives, national advertisers, and large publishers), had a record of steady growth, and had been subscribed to by virtually all of the members of the 4 A's and other leading agencies. While Barbour's company did have certain pressing financial difficulties — it had not yet reached the "break-even" point in its operations — this fact was not known to Botthof and Beirnes at the time that they launched SRDS.

All things considered, then, it was natural for the managements of SRDS and *Barbour's Advertising Rate Sheets* to regard one another with a keen sense of rivalry. Almost from the outset, it seems, their managements felt that the two publications were engaged in a struggle from which only one would survive.

The plans formulated by Botthof and Beirnes were carried out with astounding dispatch and success. The two men began to devote their full attention to the project in February, 1919, and the first edition of SRDS came out just five months later. By December, 1919, SRDS subscribers totaled 600, as opposed to fewer than 250 for *Barbour's*. The latter publication deferred adjusting to the competition of SRDS until the fall of 1922 when Barbour proposed to introduce a low cost book similar to SRDS. By that time subscriptions to the standard *Barbour's* service had declined to about 150,

while those of SRDS had risen to over 1,500. Buffeted by financial difficulties — it had yet to show a profit on its operations — *Barbour's* made a last ditch effort to obtain sufficient financial support to enable it to market its revised service. This effort failed, and *Barbour's Advertising Rate Sheet* was acquired by SRDS for the sum of \$25,000 in October, 1922. With the media-information field to themselves, Botthof and Beirnes refrained from raising the subscription price (\$30 per annum) of SRDS for nearly two decades thereafter, the meanwhile consistently expanding the scope of media information offered.

As of the early 1920's, then, the basic needs of the advertising industry for accurate and timely media information had largely been met — verified circulation data through the cooperative efforts of the publishers, agencies, and advertisers who established and supported the ABC; rates, mechanical information, and market data by a succession of private enterprises culminating in a single independent service: SRDS. In each instance the essential criteria of reliable information at reasonable cost were being realized.

					10
		Blomal.	1548.	Laus Deo.	
		Nid 30 April.			
156	12	Jår mig vnd schaden|| An Ambthaus ich mererley vnd soll bealte hab bist auff dato g. reßo/ deo ich an quitung/ R. c. viij. f. xiiij. h. vi.		R-109	f 14 b-6
157	21	Jår Korn|| An Cassa dem Michael Höfer für 44 Weizen weis halt R. xliij. f. 7. b.		R-42	f 10 b-
158	17	Jår Inwer|| An Jörg Drtinger 7 b sack/ B 245 1 k/ tara B 3 k/ vom 1 sack B 29 k/ lauter B 242 5/ loß der cent. R. 22/ macht R. 533 f 10 daron schlag ich ab vom cent/ macht R. 566 h d. netto R. 577 viij. f. xij. h. xiiij.		R-528	f-4 b-4
159	29	Jår Leinwad|| An Florian Neumayer 378 Stuch/ hdi 1 Stuch 101 da R. 4 1/2/ machen R. 12. viij. f. 7. b.		R-800	f- b-
160	22	Jår Kayß gen Wendig dem Jörg Drtinger in schick/ soll di dato An Leinwad 378 Stuch da de cu. loß 1 Stuch R. 4 1/2/ R. viij. f. 7. b.		R-800	f- b-

Sixteenth-Century Writings on Bookkeeping

Acquired by the Kress Library of Business and Economics
by Dorothea D. Reeves

ASSISTANT CURATOR
KRESS LIBRARY OF BUSINESS AND ECONOMICS
AT HARVARD GRADUATE SCHOOL OF
BUSINESS ADMINISTRATION

Two recent acquisitions of the Kress Library, a part of Baker Library of the Harvard Business School, will be of particular interest to business historians. The Kress Library, rich in the history of economic institutions and business life, as well as in material on the progress of economic thought, has a strong and varied collection on bookkeeping, to which it has recently added two rare volumes.

One, the first edition, Nürnberg, 1518, of *Ayn New Kunstlich Buech*, by Heinrich Schreiber, who taught arithmetic in Vienna, contains the first treatise on bookkeeping to be published in Germany. Schreiber, sometimes known as Henricus Grammateus, was born at Erfurt in 1496, possibly earlier. His book is really a merchant's manual with sec-

Zwifach
Buchhalten.
samt seinẽ Biornal/ des
selben Beschlus/ auch Rechnung huthum ꝛ.
Durch Wolffgang Schweicker Senior/ von
Nürnberg/ jetzt in Venedig wohnend /
mit allem fleis gemacht vnd zu-
samen bracht.

W. Schweicker S.

Dise Kunst Buchhalten sárwar /
Fúgt auch groñ Herin vnd Sonen /
Die vil Rend/ Güte vnd Spñ ein Jar /
Wie fleiß alles beschreiben ehen.
Kaufleuten auch / vnd noch vil mehr /
Prutñ groß fúhlt iustkommen /
Von nöten ist / vnd nützlich fer /
Zum handel / vnd frein frommen.
In allem haben gut fleiß /
Gott dyen iunor / vnd alwegem /
Als dann erlangen sie den preiß /
Vnd durch Iesum das ewig leben.



1549.

Die Küniglicher Kayserlicher Reichlicher Privilegie
in sex Jaren nit noch lúnger an.

The title page of Wolfgang Schweicker's treatise on double entry bookkeeping.

tions on commercial arithmetic, as well as the one on bookkeeping that describes a simple single entry system, using a journal, a sales and purchasers record, and a ledger.

The title page, in red and black, carries no date, the date being taken from the dedication. There are 124 leaves with tables, diagrams, and 8 woodcuts from 5 different blocks.

The second notable Kress Library acquisition in this field is the first German treatise on bookkeeping by the system of double, not single, entry as in Schreiber's work. The method of bookkeeping by double entry, first practiced in fourteenth-century Genoa, was not set down in print until Luca Paccioli published his famous treatise, *De Computis et Scripturis*, in Venice in 1494. From then on, what became known as the Italian method spread slowly through the western European countries. Credit for introducing it into Germany goes to Wolfgang Schweicker whose *Zwifach Buchhalten* was published in Nürnberg in 1549. Schweicker, then living in Venice based his treatise closely on Domenico Manzoni's *Quaderno Doppio col Suo Giornale*, first published in Venice in 1534, based, in turn, on Paccioli's exposition. Schweicker's folio volume of 64 leaves, including examples of a journal and ledger, printed by Johann Petreius, is described by Richard Brown in his *History of Accounting and Accountants*, 1905, as "the typographically most beautiful book on bookkeeping which has ever been printed." Reproductions from the section on the journal appear on the title page and as an end piece of this commentary. The Kress Library is fortunate to have been able to add a well-preserved copy of this *Zwifach Buchhalten* to the early material on bookkeeping already available in its collection.

Für Kayß gen Venedig An schonwerd —			—	—
1 Zymer lobel R°. 2. loß	—	—	R 100f	—
1 Zymer lobel R°. 3.	—	—	R 70f	—
6840 Fein Schonwerd/40 an 1 pindel/loß das	—	—	R 342f	—
taufent R 50. f —	—	—	R 68f	—
2000 Fein Schonwerd/10 an 1 pindel/tauf. p R 22	—	—	R 234f	—
10640 Mittel schonwerd/taufent p R 16	—	—	R 64f	—
4 Taufent gering Schonwerd/taufent p R 10	—	—	R 139f	—
278 Waß Färs/1 p R 5	—	—	R 100f	—
20 Lure durcheinander/1 p R 5	—	—	—	—
Schickt ich in 3 Faß bey Erlen Pauer Turman	—	—	—	—
Wacht alles zusammen R 1°. 1. 1011. f 1. 5	—	—	—	—

From Schweicker's section on the journal.

**Buechhalte durch Zornal Kaps
vnd Schuldbuch auff alle Kauffmanschafft**



This plate, one of the oldest book illustrations showing the transaction of business, stands at the beginning of the section on bookkeeping in Schreiber's work. It shows a cloth merchant's establishment with a clerk measuring out the material while the customer pays for it and the merchant makes the entry in his journal. The caption reads: Book-keeping for all merchants using a journal, a "sales and purchases book" and a ledger. It is possible that the woodcuts in this work were made by a follower of Albrecht Dürer.



"Arithmetic, applied or related to the noble art of music." Schreiber treatise.



The three sections on commercial arithmetic are each preceded by this woodcut showing clerks making their calculations on the abacus. Schreiber treatise.

**Kunstliche Zubereitung vñser ruh
im durch den quadrat vñs tlangel.**



Skillful preparation for gauging the rod, using a quadrant and triangle [i.e., how to use mathematics to gauge wine, etc.]. Schreiber treatise.

		R	F	S	4
Am 18 des Christmonats habe ich beschloffen meyn rechnung vnd sinder gewyn vnd volust wie hernach volget.					
Am weyn	gewyn	—			
Am bering	gewyn	6			
Am wache	gewyn	5			
Am pipe	gewyn	1	4		
Am leynsat	volust	—	2		
Am messen	gewyn	1			
Am sayffer	volust	1	4		
Zack gewyn		11	6		

A page from the Schreiber treatise on bookkeeping. "On the 18 of the Christmas month, I closed my accounts to get the balance of profit [gewyn] and loss [vorlust]."



The NAM and the Congressional Investigations of 1913

A Case Study in the Suppression of Evidence

Over a famous Congressional investigation lies the shadow of evidence suppressed for political reasons and long ignored by scholars, who by too glib acceptance of the printed testimony have perpetuated bias as historical fact.

by A. K. Steigerwalt

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INTRODUCTION

Most contemporary authorities agree that the election of 1912 culminated more than two decades of popular political and intellectual revolt against a state of affairs in American society that appeared "to guarantee perpetual political and economic control to the privileged few. . . ." Those who do not agree

with this thesis would certainly have to concur in the judgment that the progressive movement represented a period of great cultural ferment and a pervasive ideological shift away from the ideal of an individualistic society. Practically every facet of American life gave evidence of dissatisfaction with the *status quo*. The coalescence of these dissatisfactions led to a split in the Republican Party, a resurgence of the Socialists under Eugene V. Debs, and the renaissance of the Democratic Party, ably led by Woodrow Wilson.¹

Soon after Wilson's inauguration, on June 29, 1913, the *Chicago Tribune* and the *New York World* began to publish an exposé of the alleged corrupt lobbying activities of the National Association of Manufacturers² and its allied National Council for Industrial Defense. Since then, the NAM has had to live with the charge that it had by evil means been a party to the creation of an "invisible government" and to a perversion of American Democracy. The timing of these stories was particularly appropriate, for this was an era when segments of the American business community were being vilified by political figures and subjected to vituperative abuse by persons in high places, including the newly elected Democratic President of the United States. Wilson had helped popularize the theory that the big-business community constituted a conspiracy against the best interests of the American people. His speeches included in them charges that the business community in this country represented "special interests" which constituted an "invisible government" and that the economy was controlled by a "money trust."³ In fact, on May 26, 1913, at his news conference and in response to business pressure being exerted on senators then considering the Underwood Tariff Bill (already passed by the House of Representatives), Wilson boldly indicted the "insidious lobby" which "mislead the judgement of public men" and charged further that "money with-

¹ Arthur S. Link, *Woodrow Wilson and the Progressive Era, 1910-1917* (New York, 1954), pp. 1-2. See also William Diamond, *The Economic Thought of Woodrow Wilson* (Baltimore, 1943), pp. 85-88. Diamond shows clearly Wilson's intellectual shift from a confident belief in "entrepreneurial liberalism" to a confident belief in "positive government action as the means of eliminating economic maladjustments."

² For a study of the organization of National Association of Manufacturers in 1895 see A. K. Steigerwalt, "The Founding of the National Association of Manufacturers," *Bulletin of the Historical and Philosophical Society of Ohio* (April, 1952), pp. 126-142. For later developments see the author's doctoral dissertation, "The National Association of Manufacturers: Organization and Policies, 1895-1914" (1952) available on microfilm from the Library of Congress or from the University of Michigan Library. See also Richard W. Gable, "Birth of an Employers' Association," *Business History Review* (Winter, 1959), pp. 535-545.

³ See Samuel Eliot Morison and Henry Steele Commager, *The Growth of the American Republic* (4th ed.; New York, 1950), vol. II, chap. XVIII, especially p. 433. See also Richard Hofstadter, *The American Political Tradition* (New York, 1954), pp. 238 and 256.

out limit is being spent . . . to overcome the interests of the public for . . . private profit."⁴

Given this climate of opinion it was not unexpected that both the Senate and the House of Representatives evidenced great interest in the newspaper articles about the NAM. Banner headlines proclaimed the exposure of the major element of "invisible government"; the *World* reported that the case against the National Association of Manufacturers could be extensively documented. These newspapers claimed to hold thousands of letters and telegrams relating to political activities of the NAM which made it possible "clearly [to] prove the circumstantial truth of the statements made by one Colonel M. M. Mulhall," source of this material and a former employee of the NAM.⁵ Both houses of Congress subpoenaed the material in the possession of the newspapers as well as all of the records of the NAM and then proceeded to investigate "Colonel" Mulhall's charges in detail.⁶

The Mulhall story to the press alleged that the working force of the manufacturers' lobby had, in addition to Mulhall, been composed of former Congressman James E. Watson of Indiana, for 12 years the Republican whip of the House; former Congressman Charles E. Littlefield of Maine; and James A. Emery, general counsel to the National Council for Industrial Defense. Mulhall also implicated Congressman James E. McDermott of Illinois and J. T. McMichaels, his secretary. Mulhall claimed that McMichaels, between 1909 and 1911, which was prior to the time he served as McDermott's secretary, had been a chief page on the floor of the House of Representatives, and that in this position Mulhall had paid him \$100 a week for reporting on the activities of House members. The newspapers characterized this arrangement as a case of putting a "little spy on the big spies." Mulhall also stated that his personal compensation was a salary of \$5,000 a year, and that during his eight years as an employee of the National Association of Manufacturers he had handled more than \$200,000 as a "slush fund" to make effective his political and lobbying activities.⁷

CONGRESS INVESTIGATES

There was already in existence a Senate subcommittee of the Committee on the Judiciary which was investigating the Wilson charges of lobbying activities surrounding the pending Underwood tariff

⁴ Arthur S. Link, *Wilson: The New Freedom* (Princeton, 1956), pp. 187-190.

⁵ *Chicago Tribune*, June 29, 1913.

⁶ Mulhall was shown later not to be a "Colonel" but simply had appropriated it to fit his lofty pretensions.

⁷ *Chicago Tribune*, June 30, and July 5, 1913.

legislation.⁸ The Mulhall story immediately caused a widening of the scope of this investigation to include the NAM and all "other aggregations of powerful influence which occasion all reports connected with the 'invisible government.'" The House of Representatives decided that, inasmuch as its members were implicated, it too should investigate the existence of the manufacturers' lobby. This decision resulted in intense competition for the physical presence of Mulhall, with the result that he was spirited into Washington by an agent of the Senate's Sergeant-at-Arms and was kept hidden from agents of the House until he made his appearance before the Senate Committee on Friday, July 11, 1913.⁹ In view of the fact that all of the records of the NAM had been subpoenaed, it should have been possible for the investigators to corroborate or reject the Mulhall story.

To the charge of lobbying the National Association of Manufacturers was guilty, but it did not require a congressional investigation to reveal that fact. Since the day of its origin in 1895, the Association had used its influence, and the influence of its members, to support legislation which it felt was beneficial to the welfare of manufacturers and the country at large and to defeat those bills considered undesirable. The *Proceedings* of the annual conventions show that no effort was made to hide this fact, and they also indicate that the Association's entrance into political activities resulted from an urgent concern for the effect which pending labor legislation might have upon manufacturers and their industries. Moreover, the NAM had entered the political arena only as a direct result of the American Federation of Labor's decision to "help its friends and punish its enemies" via political means.¹⁰

Mulhall's major allegations were disproven on the witness stand before the inquiring senators. Whereas his story to the press indicated that he made the materials available for the benefit of the country at large, the hearings revealed the fact that he had sold the letters to the *New York World* for the sum of \$10,000.¹¹ Further, it

⁸ Edward Pendleton Herring, *Group Representation Before Congress* (Baltimore, 1929), *passim*.

⁹ 63d Cong., 1st Sess., United States Senate, *Maintenance of a Lobby to Influence Legislation*, Hearings Before a Subcommittee of the Judiciary (4 vols. and Appendix; Washington, D.C., 1913), vol. III, p. 2433. Inasmuch as the Hearings in the House of Representatives covered the same ground, the material here is based upon the Senate record. For the House material see 63d Cong., 1st Sess., *House Reports*, No. 570, No. 571, and No. 572; and 63d Cong., 2d Sess., *House Report*, No. 113.

¹⁰ Mollie R. Carroll, *Labor and Politics* (New York, 1923), p. 44. See also Lewis L. Lorwin, *The American Federation of Labor* (Washington, 1933), *passim*; John Lombardi, *Labor's Voice in the Cabinet* (New York, 1942), p. 81; and John R. Commons, *History of Labor in the United States* (4 vols.; New York, 1918-1935), vol. IV, p. 151.

¹¹ One facet of the progressive movement was the increasing power of the press which "became a vital force in the lives of the masses." One of the most powerful was the *New York World*, purchased by Joseph Pulitzer from Jay Gould in 1883; it was an ardently pro-

was brought out that he had not resigned his position with the manufacturers as he had contended, but had been relieved of his duties by an act of the board of directors in October, 1911.¹² In the intervening time between his release and the publication of the articles in the press he had done his best to sell his material to the American Federation of Labor and to the Hearst press syndicate. Failing to do so, he began to threaten the officers of the Association with retaliation unless they were willing to make use of his services again. NAM President Kirby's reply to Mulhall's threat was that "I thought you knew me well enough to not try to throw a scare into me."¹³ Only the attention which President Wilson directed at "invisible government" made the Mulhall material suddenly newsworthy, a coincidence which enabled Mulhall to negotiate for the sale of his material.

The letters of Mulhall printed in the appendix to the hearings showed him to have been active in legislative and political affairs as a representative of the National Association of Manufacturers; in his reports to his superiors he had made it appear that he had an intimate political acquaintance with practically all influential senators and representatives. In fact, his reports implicated many senators, including a member of the Senate Investigating Committee. Mulhall had reported that Senator Knute Nelson of Minnesota had given him confidential information with respect to the secret voting of the Senate Committee on the Judiciary. When, under questioning, Mulhall alleged the truth of the report, Senator Nelson was immediately sworn as a witness and proceeded to repudiate Mulhall's testimony in detail. Nelson noted that Mulhall referred to him as Chairman of the Senate Committee on the Judiciary which was incorrect. Further, he stated, he had no recollection of ever having seen Mulhall before, thus repudiating Mulhall's pretensions. Nelson was supported in his position by his colleague from Minnesota, Senator Moses E. Clapp. Similar situations arose in the cases of Senator Henry Cabot Lodge, Senator Charles E. Townsend, and Representative Oscar W. Underwood, all of whom repudiated Mulhall's statements with respect to them.¹⁴

Mulhall changed his story frequently during the course of the investigation. He had charged in the newspaper articles and repeated

Wilson paper which had long supported labor and reform causes. Although not as sensational as the Hearst papers, the *World* had grown in circulation and power in great measure on the basis of exposé, crusades, and strong Democratic partisanship. Arthur S. Link, *American Epoch* (New York, 1959), pp. 37-38.

¹² National Association of Manufacturers, Board of Directors, *Minutes*, Oct. 23, 1911, p. 1. See also U.S. Senate, *Maintenance of a Lobby . . .*, vol. IV, pp. 3929-3932 and 3940-3948.

¹³ *Ibid.*, p. 4096.

¹⁴ *Ibid.*, vol. V, pp. 2989-3017.

under oath that James Watson, a former representative, had been a paid agent of the National Association of Manufacturers while he was a member of the House. He was, however, forced to retract that serious charge when it was proved that Watson received nothing from the National Association of Manufacturers and that the only fees which he had received for lobbying in favor of a tariff commission came from the National Tariff Commission Association for work performed after his term as congressman had expired. As for Mulhall's claim that former Representative Charles E. Littlefield of Maine was supported by the National Association of Manufacturers in his bid for re-election in 1906, that fact had been made public years before. Littlefield was supported because he opposed exempting organized labor from the injunctive power of the federal courts as well as from the provisions of the Sherman Act and, moreover, his attitude on these questions antedated the appearance of the National Association of Manufacturers on the political scene.¹⁵

Mulhall's salary and expense account exaggerations were greatly diminished by the testimony and records before the Senate Committee. His salary shrank from the \$5,000 he reported to the press to \$3,600 in his testimony under oath; the records proved that his salary had never exceeded \$3,500 and had only reached that level late in 1910, less than a year before he was released. As for Mulhall's statement that he had from 1904-1912 spent a \$200,000 "slush fund" to further the political objectives of the National Association of Manufacturers and the National Council for Industrial Defense, the facts revealed a completely different situation. The National Council for Industrial Defense was not organized until 1907, so Mulhall was employed exclusively by the National Association of Manufacturers prior to that date. From 1907 to the termination of his employment, the total payments to Mulhall from the National Association of Manufacturers and the National Council for Industrial Defense amounted to \$46,422.70, of which the NAM contributed \$41,004.90. Mulhall had testified that the annual income and expenditures of the National Council for Industrial Defense amounted to \$500,000-\$700,000 annually. When the records of the Council were subpoenaed, an expert accountant showed that income and expenditures barely amounted to \$53,000 annually.¹⁶

¹⁵ For Littlefield's position on the labor question see 56th Cong., 1st Sess., *House Report*, No. 1887 and 56th Cong., 2d Sess., *Senate Document* No. 58. The fact that the A.F. of L. made a determined bid to defeat Charles E. Littlefield in 1906 is completely overlooked by critics of the NAM. See Carroll, *Labor and Politics*, p. 44; Commons, *History of Labor*, vol. IV, p. 151; and Lorwin, *A.F. of L.*, p. 90.

¹⁶ U.S. Senate, *Maintenance of a Lobby . . .*, vol. V, pp. 4603-4607; vol. III, p. 2730; vol. IV, p. 3536; and vol. V, p. 4590.

One document, discovered in the National Archives in 1950, is perhaps indicative of the atmosphere in which the hearings were conducted. Obviously, the National Association of Manufacturers wanted to discredit the testimony of the star witness, so on July 28, 1913, the counsel representing the NAM before the investigating committee wrote the chairman of the Senate Lobby Committee, Senator Lee S. Overman, requesting information with respect to Mulhall's record while he was employed in the Secret Service.¹⁷ It was hoped that such material might be admitted and made a part of the record. Senator Overman, however, refused to make this material part of the record and refused even to tell the National Association of Manufacturers that he was aware that such material existed. Not only did such a report exist, but at the time the request was made it was actually in the hands of Senator Overman. The report of the Treasury Department, Office of the Secretary, Secret Service Division, was indeed damning to Mulhall. This report reads as follows:¹⁸

The records of this office show that on July 26, 1890, Michael M. Mulhall, of Cleveland, Ohio, was appointed an Assistant Operative in this Service at a per diem of \$3.00; that on July 13, 1891, he was promoted to the grade of Special Operative at \$4.00 per diem, and that on June 14, 1892, he was dismissed to take effect from and after June 30, (1892).

In January, 1893, Michael M. Mulhall endeavored to secure a reappointment in the service but after a thorough investigation of certain charges preferred against him, in his official capacity, he was denied reappointment.

The reports of the investigation show that he was charged with making false reports to his superior officer; that while investigating the alleged counterfeiting operations of a family named Hart, at Allegheny, Pennsylvania, he became infatuated with one of the girls of the family with whom he is said to have been unduly intimate although a married man; that he exhibited a lack of moral sense in business transactions and of financial obligations; and indiscriminately used his connections with the Government service to obtain personal favors and credit.

Here, indeed, was a serious matter. Why did the senator suppress evidence so valuable to the case of the National Association of Manufacturers and, moreover, so valuable to getting at the truth of the

¹⁷ Robert M. McCarter, Counsel to the National Association of Manufacturers, to Lee S. Overman, Chairman, Senate Lobby Committee, July 26, 1913.

¹⁸ Wm. G. McAdoo, Secretary of the Treasury to Lee S. Overman, July 2, 1913, transmitting Report on Michael M. Mulhall signed by W. H. Moran, Acting Chief of Secret Service Division. National Archives, Records of the United States Senate, 63d Congress. This report was abstracted from two volumes of "Papers relating to the Dismissal of Special Operative M. M. Mulhall," Item #48 in Fiscal, Administrative and Judicial Records, 1865-1920, Records of the United States Secret Service, in the National Archives since at least 1948.

situation? The case against the NAM had indeed been damaged as a result of the public questioning of the star witness, for this questioning had revealed him to be a person capable of great exaggeration and of playing fast and loose with the truth. An even more cogent question might be: Was the Senate Committee interested in the truth? It could be argued reasonably that, in the first flush of Democratic success at the polls in the 1912 election, there was no intention of losing an immediate political advantage and that all evidence which made the NAM appear bad was indeed welcome, while evidence which was favorable was suppressed.

After the Senate finished with Mulhall, he was intensively interrogated by a select committee of the House of Representatives. Each of the seven representatives inferentially termed sinister characters by the articles in the *New York World* was given an opportunity to testify. They were quickly and completely exonerated of the guilt alleged by Mulhall.¹⁹ In the case of Representative James McDermott (Democrat, Illinois), his propriety in other matters was further investigated. The charges against I. H. McMichael were corroborated as true, having occurred in the preceding Congress, but had ceased with Mulhall's dismissal by the NAM.²⁰ There is no evidence that the Senate made its records available to the House of Representatives nor that the House of Representatives was even aware of the report pertaining to the character of the star witness. Moreover, while the Senate did not issue a report on NAM lobbying, the House of Representatives did issue a "blistering" report which termed the activities of the Association "insidious." Although the House did not deny the basic American right of any individual or association to appear before committees to advocate or oppose legislation, it insisted that whenever any person or association "by either giving or encouraging the hope of other reward . . . or by threat of punishment to be vindictively inflicted," attempted to influence legislation, such methods were a menace to the free exercise of the legislators' "solemn obligation and duty."²¹ It is clear that the absence of the

¹⁹ H. H. Wilson, *Congress: Corruption and Compromise* (New York, 1951), p. 20.

²⁰ *Ibid.*, pp. 20-30. Several aspects of Mulhall's pecuniary relationship with McMichael deserves consideration. James A. Emery (Counsel to the National Council for Industrial Defense) and Phillip J. Bird (General Manager of the National Association of Manufacturers) were aware of the "payoff" but assisted in having Mulhall relieved of his duties by the board of directors, in part of these grounds. Further, the act complained of by the House had ceased almost two years prior to the investigation and no evidence was elicited to show that the NAM members condoned such a practice or that staff members had engaged in such practices outside of this one isolated instance. My research into NAM records and discussions about this investigation with the late James J. Emery convinces me that he and the Association were not corrupt and would never knowingly permit such improper acts to be practiced.

²¹ 63d Cong., 2d Sess., *House Report, No. 113; passim*. The House report's "blistering" quality was the product of several factors, one of which was Representative McDermott's excessive impropriety in other ways not connected with the Mulhall charges. Thus

suppressed Secret Service Division report on Mulhall was damaging to the NAM cause in the House investigation.

Why did these investigations stop with the National Association of Manufacturers? Each of the committees was charged by its respective houses of Congress to investigate not only the tariff interests and the National Association of Manufacturers but the activities of all lobbies including the "labor lobby." For some reason unknown, these committees did not fully discharge the responsibility entrusted to them.

What onus properly should attach to the NAM for Mulhall's activities? This is indeed a difficult question to answer for it is in part related to the role lobbyists play in the legislative process and the propriety and legality of methods used by pressure groups to influence public policy in a democratic society.²² Given the context of the struggle between the NAM and the A.F. of L. over the use of injunctions in labor disputes, there is probably little to condone in some aspects of the behavior of both parties. However, the struggle between business and organized labor is still with us and pressure continues to be exerted upon legislators to favor one side or the other. Yet, onus there is to be borne, and in the last analysis either the staff or the membership of the Association was culpable. The most realistic conclusion would seem to be that the immediate liability belonged to the NAM staff, although ultimate liability resided in the membership. Generally, in most associations of businessmen, the professional staff has *de facto* control and is charged with implementing policy, such means of implementation being generally decided by staff specialists. As a result, staff independence in this area carries with it a contingent liability for the membership who must ultimately accept responsibility for staff actions. In this case, the transgressing staff-member had been dismissed by the board of directors without fanfare and not re-hired despite his threats of creating "a public scandal." Few would disagree with James Emery, who said in a letter to an associate that "The whole situation narrows down to this: What was a respectable association doing with such a man in its employ? There is no answer to that except the admission of the humiliating fact that the man thoroughly bunkoed our officers, as he bunkoed many other public men and private individuals."²³

the report represents in part a misjoinder of judgments only one of which is directed at the NAM. Further, subsequent House reports on the matter of lobbying were primarily extrapolations by other committees from the original and in some minority reports involved flagrant political overtones.

²² For an excellent discussion of this problem see V. O. Key, Jr., *Politics, Parties and Pressure Groups* (4th ed.; New York, 1958), pp. 3-170. For a complete bibliography see Dorothy C. Tompkins, *Congressional Investigation of Lobbying* (Berkeley, 1956).

²³ U.S. Senate, *Maintenance of A Lobby* . . . , Appendix, vol. IV, p. 4169.

THE HERITAGE OF THE MISINFORMED

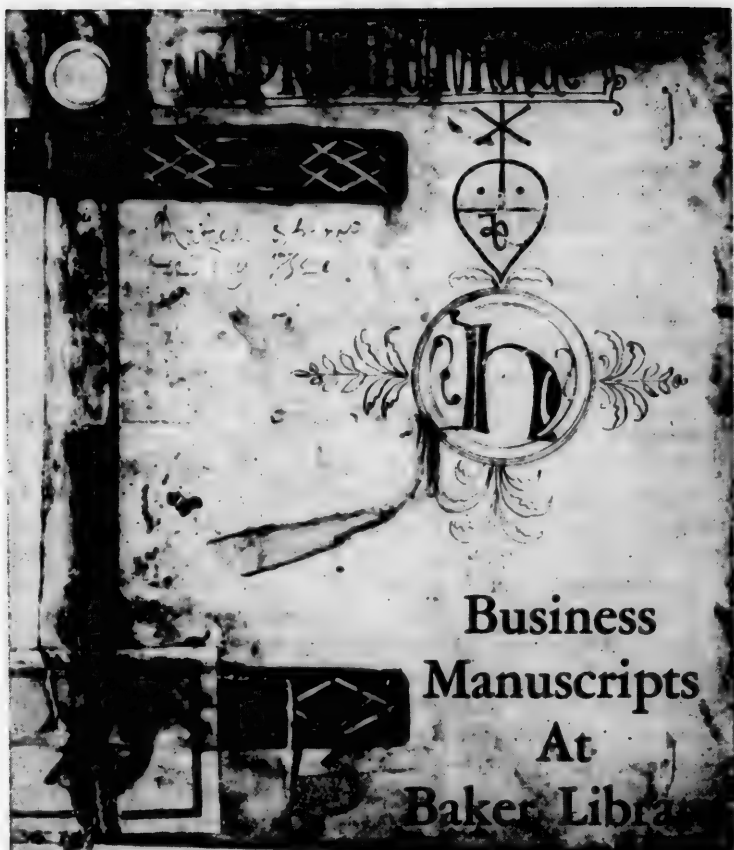
Today, in practically every book dealing with political parties, pressure groups, and lobbyists there is repeated, for the contemporary generation to savor, extracts from at least one of the "blistering" reports of the United States House of Representatives. Some of these works go to great length to extract the last ounce of venom.²⁴ Even monographic articles accept the evidence offered by the Senate and House Committees without any expressed reservations, indicating that scholars have failed to go to the "source." As one authority has noted, "It is all too easy to poison the bloodstream of history."²⁵ This perceptive observation illuminates the great responsibility borne by the historian in his search for truth. He is not relieved of his burden by alleging that objectivity is unobtainable; instead he is further pressured to be critically aware of the nature of the ego-centric predicament — his own as well as that of others.

Now, some 47 years after the event, it is possible to assert that American scholars have in this instance neglected their research responsibilities by failing to use accessible primary materials. Such materials have been available in the National Archives since December, 1935, and earlier in the Library of the United States Senate. The entire Secret Service administrative hearings in the case of Mulhall have been available since 1948.²⁶ Failure to utilize this evidence as the basis for a critical appraisal of the printed hearings and reports will make the result of any research into this area liable to the continuation of a gross distortion. Uncritical acceptance of printed congressional material without corroboration is not, as the NAM case suggests, to be recommended. The bias implicit in the material alone is bad enough, but when such bias is repeated under the guise of scholarship it assumes the mantle of authoritative truth. Thus is fiction turned into fact and folklore into history.

²⁴ As recently as 1951, a trade book devoted exclusively to the subject of lobbying extracts the last possible ounce of venom from the 1913 Report of the House Lobby Committee. In a chapter entitled "Masters of Government," Karl Schriftgiesser warms over the standard approach complete with such contemporary phraseology as "NAM stooge." Karl Schriftgiesser, *The Lobbyists* (Boston, 1951). Schriftgiesser apparently relied heavily upon Kenneth G. Crawford, *The Pressure Boys* (New York, 1939) for the Lobby investigation of 1913. Schriftgiesser was also wrong in other respects about the Lobby investigation. For example, he names Senator A. B. Cummings, Insurgent Republican from Iowa as chairman of the Lobby Investigation, p. 40. An interesting but unsupported theory about the investigation is set forth in Bertram M. Gross, *The Legislative Struggle* (New York, 1953), where he states that "The 1913 investigation of the NAM was the product of the A. F. of L.'s campaign for the Clayton Act," p. 24.

²⁵ Oscar Handlin, et al., *Harvard Guide to American History* (Cambridge, 1955), p. 24.

²⁶ See U.S. National Archives, *Guide to the Records in the National Archives* (Washington, D.C., 1948), pp. xi ff. See also: *Preliminary Inventory of the Records of the U.S. Secret Service*, p. 14.



**Business
Manuscripts
At
Baker Library**

Harvard Graduate School of Business Administration
by Robert W. Lovett

HEAD OF MANUSCRIPT DIVISION
AT BAKER LIBRARY, HARVARD
GRADUATE SCHOOL OF BUSINESS
ADMINISTRATION

Many manuscript collections contain business materials of one sort or another, but Baker Library, of the Harvard Business School, has the largest single accumulation of such records, acquired by a private institution

Title illustration: cover of 1520 Medici letterbook, Medici Collection, Baker Library.

for purposes of research. These qualifications are necessary, since the records of many large companies, such as U. S. Steel, would greatly outnumber our holdings; and such a public institution as the National Archives contains extensive business materials.¹

Conversely, we have not acquired the complete files of any large modern concern (we would just not have the room, even if offered them), but have limited ourselves to the papers of earlier firms no longer in existence, or (on occasion) to segments of the records of continuing firms. Even so, the collection now totals some 50,000 volumes or the equivalent, occupying a reading area, an office, and portions of two stack levels in Baker Library and a nearby basement storage room.

The collecting of business documents at Harvard has been going on for at least 50 years. If one takes into account the University's own business records, maintained in the University Archives, the date could be pushed back two centuries or more. In his report for 1908-1909, on the completion of the first year of operation of the Harvard Business School, Dean Gay announced that the Library had acquired the nucleus of a Business Archive. Until the completion of the new buildings on the Boston side of the Charles River in 1927, the School's Library had little room for any very large manuscript collections. In the meantime, the Harvard Commission on Western History had acquired some original business materials, and Professor Arthur H. Cole, of the Economics Department (later Librarian of Baker Library) had been able, in 1916, to obtain records of the Slater mills in Rhode Island and Massachusetts. This was really the first large, unified collection of business records to be acquired, and its handling furnished experience for the treatment of similar collections in the future.

With the opening of Baker Library and the other new buildings of the School in 1927, the way was clear for a rapid increase in collecting. Members of the Business Historical Society, established two years earlier, with headquarters in Baker Library, considerably furthered the growth of the collections; unfortunately, the Society is no longer active. Charles H. Taylor, publisher of the *Boston Globe* at that time, was one of the most generous donors. Agents of the Society and of the School, among them Howard Corning, who was later in charge of the Essex Institute in Salem, traveled extensively along the eastern seaboard in search of material. Through its en-

¹ This article in slightly different form was first published in *Manuscripts* (vol. XI, no. 2, Spring, 1959). The author wishes to acknowledge the courtesy of that publication in consenting to reproduction here of the present revised version.

couragement of the preparation of business histories, the School's Business History Department has been responsible for the Library's acquiring several collections.

In the early 1930's many New England textile firms went out of business or moved South, and a half dozen large collections, each one numbering over a thousand volumes or the equivalent, came to Baker Library. So rapidly was material received that the staff could not handle it all, and portions of the papers were stored in crates. During World War II the Manuscripts Division was closed, and a further backlog accumulated. Since the reopening of the Division in 1947, current accessions have been handled as received and a portion of the accumulated material has also been shelved. Guides to the collections were issued in 1932 and again in 1951; the latter is still available from the Library.

Our present collecting policy is, in general, to concentrate on New England business activity; in fact, we have given to institutions in other areas a few collections relating directly to those areas. The bulk of our material comes to us as gifts, from firms or families, but we do on occasion purchase a single volume or two of early date, say before 1820. However, we have so much farming and general store material already that we would not be inclined to purchase volumes of this sort unless they were most unusual. On the other hand, association pieces do not interest us nearly so much as reasonably complete accounts of some business activity for which we do not have much material. To the economic historian, an account book of a general store in Concord, Massachusetts, showing purchases by Emerson and the Alcotts, would not have much more significance than one for a nearby town at the same date, without such illustrious customers. Thus, for the period after 1820, our criteria for acquisition are reasonable completeness of the records for the life of the firm or activity to which they relate and relevancy to our collecting needs and interests of the moment. Business touches a wide area, and so our collections are by no means confined to the records of firms alone. Logbooks, accounts of a doctor or lawyer, private investment and household accounts, even records of association and government activities, have in the past been of interest to us and might be again.

Our handling of the collections for the most part follows general archival practice. We try to keep collections together; here I would put in a plea against the breaking up of collections, which would seem as much or more of a sin in the case of business records as it is in personal and literary manuscripts. We follow, if possible, the

original order, and prepare finding lists or inventories by series for the larger collections. In most cases, we cannot attempt to record piece by piece; the voluminous series of letters and documents precludes this. The bulk of business records, and the routine nature of portions of them often make possible a sampling of certain series. When the custodian is faced with thousands of bills, or invoices, or freight receipts, and finds the general accounting records complete, discarding the former seems to be a sensible step. Only a team of scholars could make any profitable use of such marginal materials, and the individual scholar will thank the archivist for making his way easier. A record should, of course, be kept of any items disposed of, and the custodian should be careful to keep all material of an early date (perhaps before 1850), and all the early records of a given firm.

If necessary, we accept collections with restrictions as to date of use; the few of this sort which we have are mostly papers of individuals. However, if fairly recent (though noncurrent) records of a going concern are accepted for preservation, then some restriction as to use may be necessary; but even here, provision should be made for use by scholars at as early a date as possible. In some instances, where the institution has served in effect as the firm's archives, the latter has reimbursed the former for the cost of handling and servicing the records. Where possible, the large firm should establish its own records management and archival program; but rather than see historically valuable records destroyed, the public or private collecting institution should offer to preserve them. In this, as in so many collecting fields, cooperation in the form of regional specialization seems desirable.

A brief account of some of the types of material which Baker Library has acquired may be of interest. The collections range in size from a single volume of some Colonial farmer or storekeeper to the thousand volumes of a company like that of Lyman Mills, and in time from the account books of the Medici to noncurrent records of the present-day Whitin Machine Works. The Medici records relate to the management of estates and a wool business, and were given to Baker Library by H. Gordon Selfridge, the London department store owner. The earliest American material consists of a series of court documents relating to the Lynn Iron Works, of Saugus, Massachusetts. An important eighteenth-century collection is that relating to Thomas Hancock and his nephew, John, merchants of Boston; it is on deposit with this Library from the New England Historic Genealogical Society. Two interesting

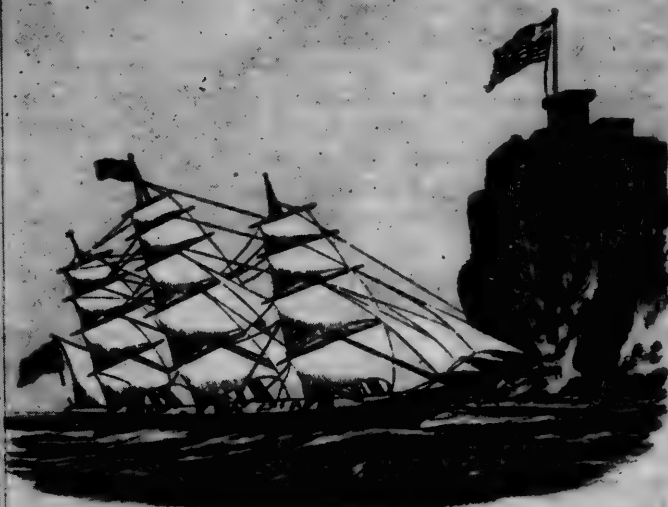
letterbooks of the pre-Revolutionary period are those of John Rowe and Henry Lloyd, both Boston merchants; the Rowe volume was deposited by the Boston Public Library.

The bulk of our material, as I have indicated, falls within the nineteenth century, and here I can only mention a few examples. Such New England merchant families as Bryant and Sturgis, Tudor, Wendell, Appleton, Forbes, and Heard are represented. The Heard collection, relating to the China Trade, is probably the largest assemblage of material on this subject in this country. The first portion of this large collection came to us from the family; the second portion, which had been acquired by Yale, was deposited by that University with this Library, in return for certain Connecticut materials. I have already mentioned our extensive textile holdings; such large mills as Boston Manufacturing, Lawrence, Hamilton, Lyman, Dwight, Pepperell, and Naumkeag are represented. In the field of transportation our largest collection is that of the early lines which went to make up the Boston & Albany; but we also have numerous smaller groups of material. Our whaling records, including logbooks, are fairly numerous; the collection for Swift & Allen, New Bedford chandlers, is unusually complete. The engineer, Loammi Baldwin, is represented here; and such national figures as John Jacob Astor and Jay Cooke are represented by partial collections. There are collections, sometimes only one large one, in such fields as banking, clock making, insurance, and publishing; in fact, I could go on at length, but these examples present a fair idea of our holdings.

Most manuscript custodians sooner or later are given responsibility for various subsidiary types of material. At Baker Library the Manuscripts Division also looks after portions of the School's own archives, exhibit materials, pictorial records, and maps. Since the year 1958 was the School's fiftieth anniversary, it is likely that the archival materials will continue to increase. Certain printed ephemera, such as circulars, business instruments (i.e., samples of bills of lading or stock certificates and the like), and a few advertisements are placed in folders in a vertical file. Single folders of manuscript material, too small in amount to be placed on shelves, are also placed in the file, arranged simply by the industry classification developed by this Library. Exhibit materials may include almost anything, although we do not try to collect many museum items. The two largest segments in this category are the trade and ship cards and a collection of paper money and coins of historical interest. Pictures, both framed and unframed, include those relat-

Merchants' Express Line of Clipper Ships for
SAN FRANCISCO.

Dispatching the greatest number of Vessels, and loading none
but those of the first-class.



THE SPLENDID A 1 CLIPPER SHIP

RICHARD S. ELY

LIVINGSTON, Commander,

AT PIER 18 EAST RIVER.

This elegant vessel ranks among the sharpest afloat, and is worthy of the personal attention of every shipper. She stands A 1 clean. Comes to her berth with a large portion of her cargo on board, and will have very quick dispatch.

RANDOLPH M. COOLEY,

88 WALL ST., Tontine Building.

Agents in San Francisco, Messrs. DE WITT, KITTLE & CO.

NEHRVE & CO., PRINTERS.

From the Baker Library trade card collection.

ing to various industrial processes, scenes of plants, and photographs of prominent businessmen. In addition to current maps used in teaching, maps of historical interest relating to transportation, communication, and similar matters are preserved.

Baker Library also collects early printed materials in the fields of economics and business, but these rare books are kept in a separate collection, known as the Kress Library. Special groupings here are a collection of the writings of Adam Smith, begun by Homer B. Vanderblue, and another relating to the South Sea Bubble, the gift of Mrs. Hugh Bancroft. The curator of the Kress Library is responsible for exhibits; she draws heavily on the Manuscripts Division for materials. Both the Manuscripts Division and the Kress Library were set up in the first instance to provide background or "roots" for the main Baker Library collection. The School's Business History Department has found these special collections of considerable aid. Some students at the School make occasional use of the rare books and manuscripts; and they draw many visiting scholars to the School. Numerous publications have been based upon them, including the Kress Library's own series of brochures.

Although the nature of modern business records makes their treatment different from that given to the more usual type of rare manuscript, there are similarities. Our older materials could easily be matched by similar items in many rare book and manuscript collections; we even have, though incidentally, a few items of autograph interest, such as a half dozen letters of George W. Whistler, the artist's father, who was concerned in the construction of the Western Railroad. But it is our extensive and, we hope, reasonably complete collections of the records of representative businessmen and firms which should prove of most use to scholars. As the historical significance of business records becomes more widely recognized, more and more institutions are acquiring them. And in this day of the typewriter, the papers even of literary and political figures become more voluminous. So the archivist and manuscript curator must perforce become more aware of the techniques of the records manager. And businessman and librarian or curator should work together to insure that a portion at least — and we hope a significant portion — of the business records of our time will be preserved.

Condensed Annual Report: Manuscript Division and Archives, 1958-1959

The past year has seen the receipt of a number of significant manuscript collections, and the handling of several which were received before the War. Among the gifts were records of investments of two old Boston families (Bowditch and Coolidge); the papers relating to investments of T. Jefferson Coolidge are especially complete. Mr. Edwin O. Tilton, whose grandfather was the Fobes connected with Fobes and Hayward, the predecessors of the New England Confectionery Company, gave a few early volumes and mementos of that concern. The Sawyer family, descendants of George Frost, of Durham, New Hampshire, whose records we have, gave us the records of the Sawyer Woolen Mills, of Dover, New Hampshire. Another large collection consists of the records of Mauger & Avery, wool merchants of Boston at the turn of the century, the gift of Mrs. Florence Moore, granddaughter of Elisha Avery. Mr. E. K. Haviland, of Baltimore, contributed toward the purchase of records of George U. Sands, Captain and engineer in Hong Kong during the last years of the Heard company's activity there. To help round out our collection relating to the Saco Lowell Shops, David F. Edwards, formerly president of the company, gave us a portion of his files.

Additional records were brought from storage during the past year, handled and shelved. These included records of the Thorndike Company, of West Warren, Massachusetts (cotton), of Wilder & Estabrook (Boston, Massachusetts, tobacco), and of Swift & Allen (New Bedford, Massachusetts, outfitting of whaling vessels). Some collections, although shelved, had not been completely listed and labeled. In this category this year we were able to handle the records of W. W. Gordon & Co. (cotton merchants, Savannah); Dexter Whittemore & Son (general store, Fitzwilliam, New Hampshire); and Witherle (general store, Castine, Maine). The year also saw the compilation of an index to small amounts of manuscript material, kept in folders in a vertical file. Thus we are gradually extending the coverage of our index cards, both as an aid to persons using the material, and as a basis for an improved index, in case a supplement to the *List of Business Manuscripts in Baker Library* (1951) is issued.

Use of the material in the Manuscripts Division continued at about the same level as the preceding year. In a departure from

usual practice, parts of two collections were sent to libraries in other parts of the country for the convenience of students. Under proper safeguards, I do not see why, on occasion, this should not be done.

The list of collections received during the past year follows.

New Accessions, 1958-1959

Banking

COMMONWEALTH BANK, 1825-1838, Boston, Mass., 2 volumes, 1 box

Papers in bankruptcy.

Gift of Judge Elijah Adlow

ORIENTAL BANK, BOSTON; NAHANT BANK, LYNN, 1831-1844, 3 cases

Papers in bankruptcy.

Gift of Judge Elijah Adlow

Confectionery

FOBES & HAYWARD; BALL & FOBES, 1850-1895, Boston, Mass., 8 volumes

Account books, payrolls, of firms which preceded New England Confectionery Company. The donor also gave pictures, advertisements, two or three letters, and a box of lozenges.

Gift of Edwin O. Tilton

Cooperage

DANIEL TOURTELLOT, 1795-1824, Sutton, Mass., 1 volume

Account book; also a folder of bills, receipts, inventories of John Gleason, Worcester, 1788-1822.

Gift of Mrs. Charles B. Gleason

Department stores

A. LINCOLN FILENE, 1921-1925, Boston, Mass., 5 boxes

Nonbusiness papers of Mr. Filene; these fit in to some extent with the Kirstein papers which we already have.

Transferred from Widener Library

Foreign trade

CHARLES W. DABNEY & SONS, 1864-1898, Fayal, Azores, 8 volumes

Account books, some in Portuguese; the Dabneys served as Consuls at Fayal.

Gift of Mrs. Weston Howland

GEORGE U. SANDS, 1866-1879, Hong Kong, China, 18 volumes

Account books, Letterbooks, and papers of a man who was a Captain and engineer in Hong Kong during the last of the Heard firm's activities there.

Purchased

General store

WHITNEY & DORR, 1799-1813, Boston, Mass., 1 box

Inventories and accounts.

Gift of Judge Elijah Adlow

MOSES HALL, 1817-1818, Durham, N. H., 1 volume

Added to Frost Collection, v. 68.

Gift of Charles H. Sawyer

Household management

WILLIAM H. GARDINER, 1825, 1840, 1859-1871, Boston, Mass., 1 box

Household expense book, 1825; Travel expense books; Bills, Paris, 1861-1862. A few general letters were transferred to Houghton Library, which already has Gardiner letters.

Gift of Sister Geraldine Mary

News print manufacture

WILDER & Co., 1892-1894, Boston, Mass., and Olcott, Vt., 1 box

Letters, many to and from two Wilder brothers, relating to the business.

Gift of Mrs. Everett E. Kent

Private investment

T. JEFFERSON COOLIDGE, 1857-1938, Boston, Mass., 43 volumes

Letterbooks, Ledgers, Cash books, etc. See also textile manufacture (Amoskeag) for letters of T. Jefferson Coolidge as treasurer of Amoskeag Mfg.

Gift of William Coolidge and T. Jefferson Coolidge

H. P. BOWDITCH, 1890-1911, Brookline, Mass., 1 box

Unbound statements of investments of H. P. Bowditch; also other Bowditch family papers.

Gift of Dr. Harold Bowditch

Rubber manufacture

BOSTON & LYNN INDIA RUBBER MFG. Co., 1833-1843, 1 case

Papers of the company in bankruptcy.

Gift of Judge Elijah Adlow

Steam railroad services

HARTFORD & NEW HAVEN RAILROAD, 1836-1902, 1 volume

Photostats of inventories, 1842-1872.

Gift of C. B. Burr

Teaching

PRIMARY TEACHING, 1797-1799, 1 volume

Petty ledger of a school teacher; probably Boston.

Gift of Mrs. F. C. Bowditch

SECONDARY TEACHING, 1838-1870, 6 volumes

Daybooks and Ledgers of Elisha Lothrop Avery, operator of an academy for boys in New York City.

Gift of Mrs. Florence Moore

Textile machinery manufacture

SACO-LOWELL SHOPS, Boston, Mass., 12 cases, 1 box

To be added to our Saco-Lowell Collection: office files, 1927 (1912)-1952, of David F. Edwards, president of the firm.

Gift of David F. Edwards

Textile manufacture

AMOSKEAG MFG. CO., Manchester, N. H., 1 box

Additional, to be added to our Amoskeag Collection; a box of letters of William Amory, treas., 1852-1857; and of Thomas Jefferson Coolidge, treas., 1884-1896; both to agents of the company.

Gift of William Coolidge

Wool merchants

MAUGER & AVERY, 1873-1922, Boston, Mass., 255 volumes, 10 cases

Records, including Daily statements (1890-1906), Journals (1895-1912), Ledgers (1866-1916), Cash books (1887-1903), Receiving books (1892-1915), Deliveries (1894-1902), Stock (inventory) ledgers (1890-1911), Sales (1879-1908), Bills (sampled, five-year intervals, 1890-1910), Outgoing letters (1873-1903 and later), Incoming letters (scattering). Unbound material is incomplete, with only a sampling for 1890, 1900, and 1910. The firm had offices in New York City, Chicago, Philadelphia, and Providence.

Gift of Mrs. Florence Moore



The American Manufacturing Frontier, 1870-1940

¶ Difficult statistical problems notwithstanding, it is possible to trace the course in time and place of a gradual transition from agrarian to industrial pursuits. On occasion, this transition was slowed or reversed by cyclical influences, but the long-term trend of manufacturing concentration was away from the East. As the manufacturing frontier shifted, the service industries moved in and currently employ much of the capital and labor of the old industrial centers.

by Robert F. Severson, Jr.

FACULTY ADVISER
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Has there been a westward movement of manufacturing, following the westward movement of the individuals that first settled the United States? It appears that there was such a movement, after a considerable time lag.

As the agrarian portion of the population

moved westward, it created new market areas. Cincinnati, St. Louis, and Chicago were among the numerous metropolitan areas of today whose roots are found in early agrarian trading posts. It was in these centers that the products of frontier farms were bartered for the products of far-off manufacturers. As time passed and as the population grew, these agricultural trading posts served larger areas. Transportation improved and farmers began to think of producing cash crops. This was a first step toward specialization. Shortly after this step was taken, enterprising businessmen decided to manufacture, on the spot, some easily salable but relatively scarce items for the frontier market. The aggregate figures employed here will reflect the efforts of these early entrepreneurs. Manufacturing was following the old frontier.

At best, the idea of a frontier is elusive. It must be defined in some way to be useful as an explanatory concept. The term manufacturing frontier requires even closer definition. It must be arbitrary so that it can be used as a measure of the importance of manufacturing within a given area.

Manufacturing is important in relation to people. The measure of the importance of manufacturing is reflected in the income and in the products it provides for people. How did people get their incomes and where were the products they consumed made? The various degrees of manufacturing must be defined so as to reflect this importance. This requires the construction of a measure. In scanning the pertinent data, the one source available is the United States Census data for the decades in question. There was comparable information available for the years 1870 through 1940.

Use of the census necessitates the use of aggregate figures. Aggregate figures tend to have an evening-out effect when applied to a large area. A state is a large area when the problem considered is manufacturing. The real locus of manufacturing in any state was and is confined to a city or a few cities located in particularly favorable sites. The state of New York is an excellent example. Its major manufacturing area in 1870 was at the mouth of the Hudson River — New York City and its environs. This location had the proper combination of factors and facilities necessary to the growth of a manufacturing area. But New York City takes in a very small portion of the total state. Use of the aggregate data supplied by the census gives the impression that manufacturing was important to this state. It tends to de-emphasize the importance of other pursuits. This is because the state labor force depended a great deal on manufacturing for its income and the customers of New York

manufacturers were willing to pay these manufacturers a large percentage of the state-wide income for the products being made in New York state.

New York is much larger than Connecticut and it has a greater concentration of capital, more firms, a higher product value, and more people employed in manufacturing. But is manufacturing any the less important in Connecticut than it is in New York? It is not. Taking the entire state's manufacturing capital, number of establishments, product value, and provision of income by manufacturing, it becomes apparent that the people of Connecticut had a higher *relative* dependence on manufacturing than those in New York during the period 1870 through 1940. This relative importance of manufacturing as compared to all other employments within each state is the central idea behind a measure of the importance of manufacturing. A critical examination of the available data and their meaning clarifies the course to be taken. The United States Census data give four basic categories of information for each of the census dates covered since 1870. This is not all of the manufacturing information given in the census, but these categories seemed most pertinent here as possible measures. They are: (1) aggregate capital value of all manufacturing establishments within each state; (2) aggregate number of manufacturing establishments within each state; (3) aggregate value of manufactured products produced within each state; and (4) aggregate number of hands employed in the manufacturing sector of each state's labor force. Comparable information was available for each of the census years from 1870 through 1940, but not before nor after these dates.

(1) Aggregate capital value of all manufacturing establishments within each state

Capital has many shortcomings as a measure of the importance of manufacturing under the stated definition. The *Compendium of the Ninth Census (1870)* stated: "The census returns of capital invested in manufactures are essentially untrustworthy and delusive." The capital value of a firm is dependent on the age and repair of equipment, type of firm, durability, depreciation methods of bookkeeping, its ability to produce an economic good, and numerous other factors. The cumulative dollar value of an operating manufacturing establishment is meaningless until the firm has actually been sold.

(2) Aggregate number of manufacturing establishments within each state

In the method employed by the United States Census, a manufacturing establishment is "any Mechanical process producing over \$500 value in a year."¹ Under this system a firm such as the mammoth General Motors plant in La Grange, Illinois, is counted the same as is the small businessman in a residential area who makes and sells wrought iron house-railings in his basement workshop.

The number of establishments in a state is dependent also on the size of the state. Rhode Island had fewer firms in 1920 than did Nebraska. But it would be hard to classify either Rhode Island or Nebraska on the basis of the number of establishments and still show the importance of the employment and products provided by manufacturing in these states. Even a measure based on the number of firms per square mile would be useless because of the basic differences in the sizes of firms.

(3) Aggregate value of manufactured products produced within each state

This measure comes closer to fulfilling our basic requirements than either of the two mentioned above. It expresses the contribution made within each state by the production of economic goods. But taken by itself, this figure is of no help. The absolute amount of product value developed in Connecticut will be lower than that of New York. A relative concept must be employed, but what relative concept? Expressing the value of products as a percentage of the number of establishments within a state would give a figure liable to all of the shortcomings of the "number of establishments" concept. If expressed relative to the area of the state, it would weigh too heavily in favor of the extreme cases — it would weigh in favor of those states in which the greatest bulk of the scarcest products are manufactured. Perhaps the value product per person employed would be a valid measure, but once again the inflated value of supply-short products on the frontier will give a false measure. The value of the product of an old established firm, fully utilizing its capacity to produce, would appear as less important than a new frontier firm operating at a small fraction of capacity.

The ideal relation would be expressed by stating the value of

¹F. A. Walker, Superintendent of Census, Department of Interior, *A Compendium of the Ninth Census (June, 1870)*, U. S. G. P. O. (Washington, 1872).

manufactured products relative to all other products to come out of a state (expressed as a percentage of the state's gross product). Unhappily, the gross product of the various states was not tabulated prior to 1914. This leaves very little with which to work.

The only measure left in the census data or elsewhere is a comparison between the total production of manufacturing, agriculture, and mining. With data estimating the total production in these three areas, the relative value of manufactured products can be stated in terms of the total value produced by manufacturing, agriculture, and mining within each state.

This is one measure of the importance of manufacturing within a given state — the percentage value of manufactured products as compared to the percentage value of the products of agriculture and mining.

(4) Aggregate number of hands employed in the manufacturing sector of each state's labor force

This concept touches directly on the requirements set up by this article. It depicts manufacturing as an employer and provider of income. Here again, the absolute figure fails to give a good measure. The problem is easily solved by stating the relative importance of manufacturing as an employer in comparison to the entire state labor force. This removes the effect of differences in area and the differences in the absolute size of the labor force in the various states.

There are, then, two acceptable relative measures of the importance of manufacturing. But there is still the need of some yardstick by which to determine the comparative importance of manufacturing between the various states. At this point, contemporary experience provides the most suitable answer.

Contemporary national experience provides the criterion to be met by the highest level of manufacturing in the past. Today this nation is considered an industrial nation. Today's national averages on employment and production should and do reflect what would be expected of the individual states having the highest level of manufacturing in the past. The United States Census Bureau's 1954 tabulations were consulted to determine the relative importance of manufacturing today with the use of material similar to that available for the entire 1870-1940 period.² It was found that

² United States Department of Commerce, Bureau of Census, *U. S. Census of Manufactures, 1954*, and *Annual Report on the Labor Force, 1954*, Series P-50, No. 59, and *U. S. Census of Mineral Industry, 1954*, and *U. S. Census of Agriculture, 1954*, U. S. G. P. O. (Washington, 1955).

in 1954, 24.3 per cent of the civilian labor force was employed in manufacturing. At the same time, manufacturing accounted for 76.3 per cent of the value produced by mining, agriculture, and manufacturing combined.

These two percentiles were taken as the criteria to be met by the highest possible level of manufacturing within any state during the period 1870-1940. Intermediary levels were arbitrarily developed to express the varying degrees of manufacturing importance. Names were then provided for these levels. The name of each level and the criterion to be met is presented in Table I.

TABLE I

Classification Criterion for the Importance
of Manufacturing, 1870-1940

Classification	Total State labor force employed in manufacturing (per cent)	Total State product value provided by manufacturing (per cent)
Established Manufacturers	25	75
Equipped Manufacturers	20	65
Settled Manufacturers	15	50
Frontier Manufacturers	10	35

If 25 per cent of a state's labor force were employed in manufacturing and if 75 per cent of the state's combined manufacturing, agricultural, and mining production were produced by manufacturing, the state was classified as an "Established Manufacturer." If 20 per cent of the employment and 65 per cent of the production were provided by manufacturing, the state was classified as an "Equipped Manufacturer," and so on for the remaining classifications of this study.

Table II gives the results of the classification of the states according to the arbitrary categories developed here. This table shows a fluctuation of the number of states from class to class over the entire 70 years. This fluctuation is a result of cyclical and institutional changes in the economy.

In 1870 there were only two states that could be considered as Established Manufacturers, namely, Massachusetts and Rhode Island. Connecticut was an Equipped Manufacturer, and Delaware, Maine, New Hampshire, New Jersey, New York, and Pennsylvania comprised the group called Settled Manufacturers. This

TABLE II

Number of States in Each Classification, 1870-1940

Classification	1870	1880	1890	1900	1910	1920	1930	1940
Established Manufacturers	2	6	10	9	8	11	14	10
Equipped Manufacturers	1	4	3	3	6	5	3	7
Settled Manufacturers	6	1	6	6	6	6	8	8
Frontier Manufacturers	8	7	5	8	10	10	9	7
Total	17	18	24	26	30	32	34	32

left California, Maryland, Michigan, Missouri, New Hampshire, Ohio, Vermont, and Washington as Frontier Manufacturers. There was insufficient manufacturing activity carried on in the remainder of the states and territories for any to be considered as manufacturing areas.

What this means is that in 17 states there was more than 10 per cent of the labor force employed in manufacturing, and more than 35 per cent of the combined manufacturing, agricultural, and mining product of these states was produced through manufacturing. The eight maps which follow depict the movement and increasing importance of manufacturing for the eight census years analyzed.

This whole movement was a series of gradual transitions from agrarian to industrial pursuits. There were occasional spurts and relapses: nevertheless the over-all trend was a westward movement of manufacturing.

This is a study of aggregate magnitudes; therefore other concurrent aggregated magnitudes have an effect on the data. The fluctuations of the business cycle are especially applicable. Examples of the interdependence between the aggregate concepts and the business cycle are found in the 1880-1900 period. This period shows that a certain backsliding took place in the westward movement of manufacturing. California, Minnesota, Missouri, Ohio, and Wisconsin all hit a peak in 1890, rising by at least one classification from the previous census date. There was a reason for these fluctuations. This list is made up of large states capable of a great deal of agricultural production. In the years before and after 1890 the relative value of their agricultural production was higher. Table III provides an example of the effect of the cycle on agriculture and manufacturing in Ohio between 1880 and 1900. Rapid fluctuation in agricultural prices is the reason for most of the backsliding that took place in Ohio and the other states in this list.

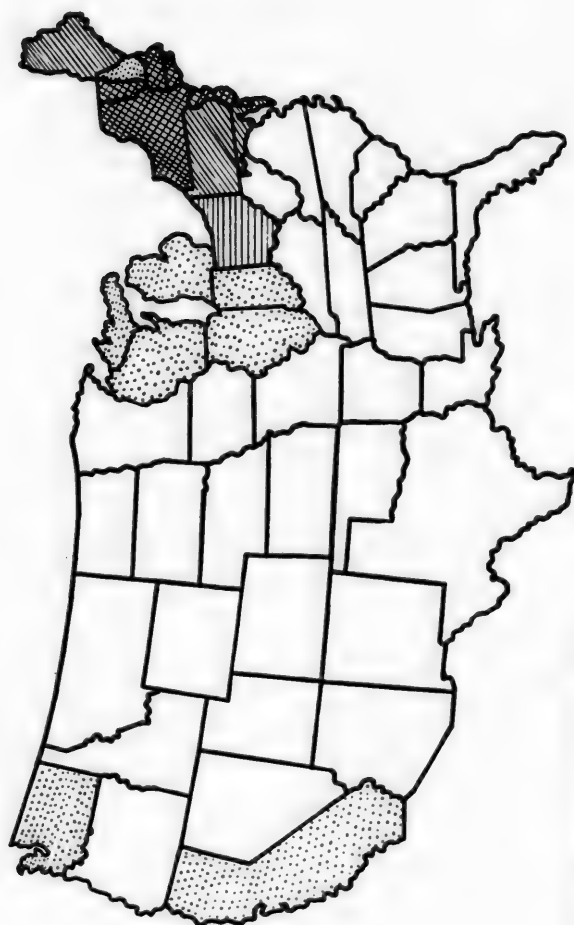
MAP I



ESTABLISHED MANUFACTURER
EQUIPPED MANUFACTURER
SETTLED MANUFACTURER
FRONTIER MANUFACTURER

The American Manufacturing Frontier, 1870

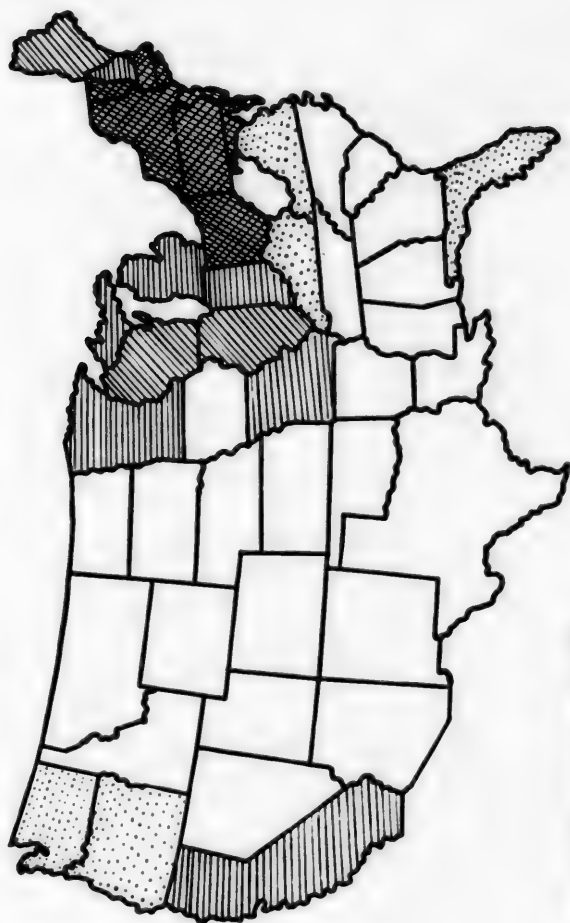
MAP II



ESTABLISHED MANUFACTURER
EQUIPPED MANUFACTURER
SETTLED MANUFACTURER
FRONTIER MANUFACTURER

The American Manufacturing Frontier, 1880

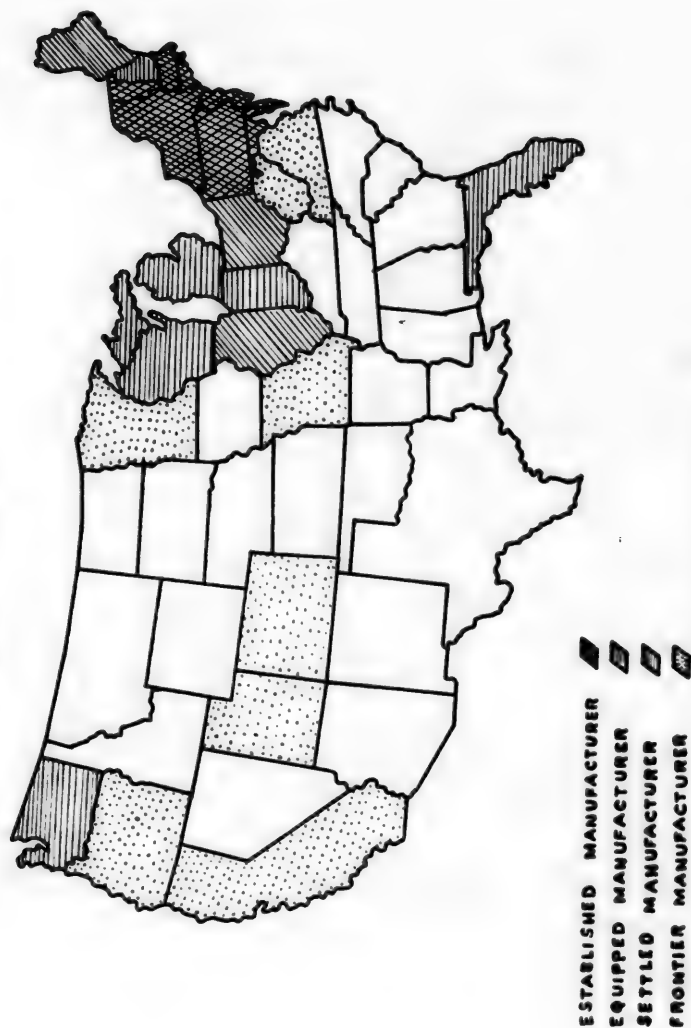
MAP III



ESTABLISHED MANUFACTURER
 EQUIPPED MANUFACTURER
 SETTLED MANUFACTURER
 FRONTIER MANUFACTURER

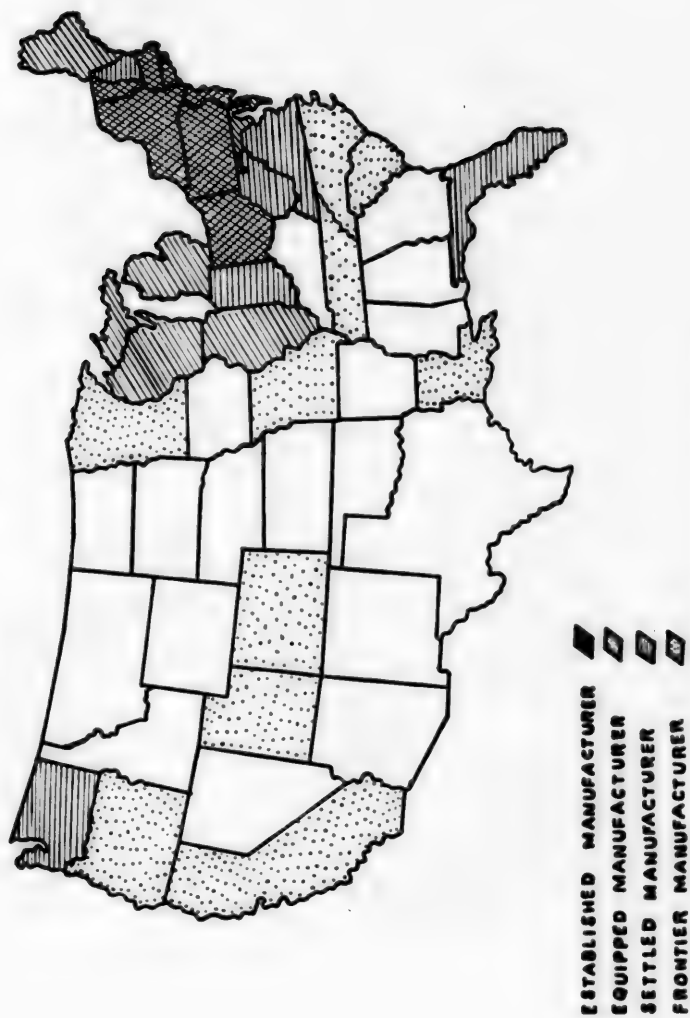
The American Manufacturing Frontier, 1890

MAP IV



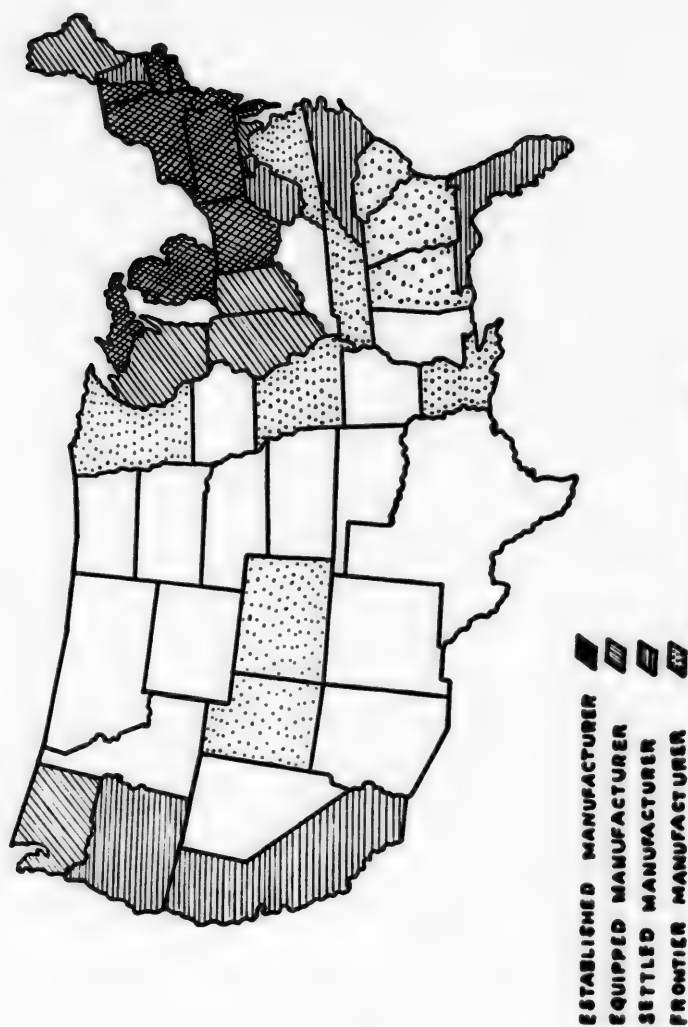
The American Manufacturing Frontier, 1900

MAP V



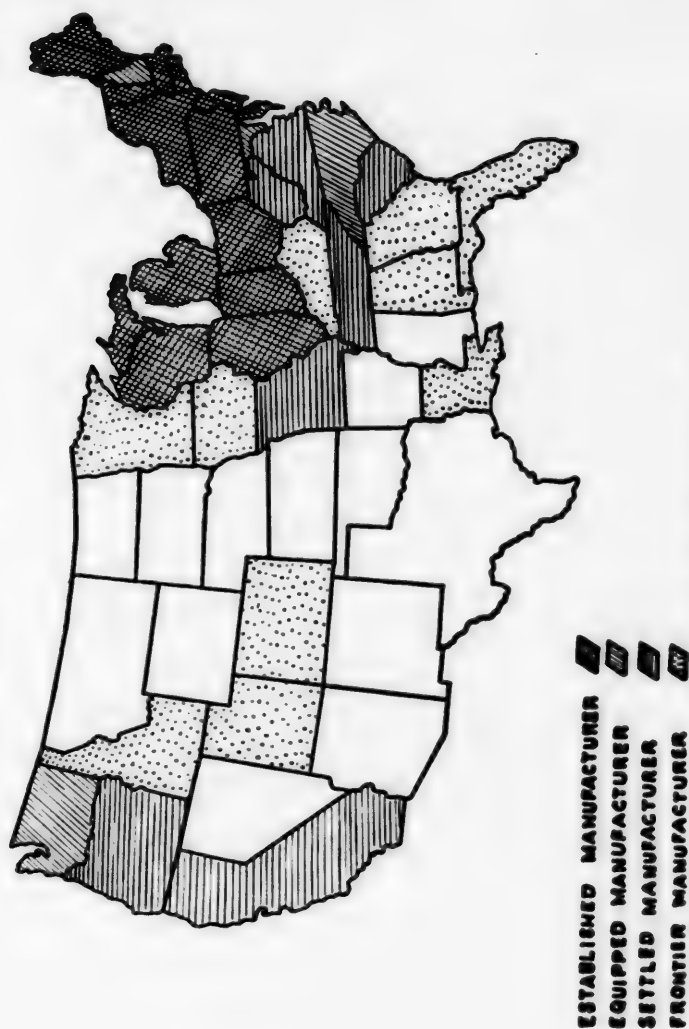
The American Manufacturing Frontier, 1910

MAP VI



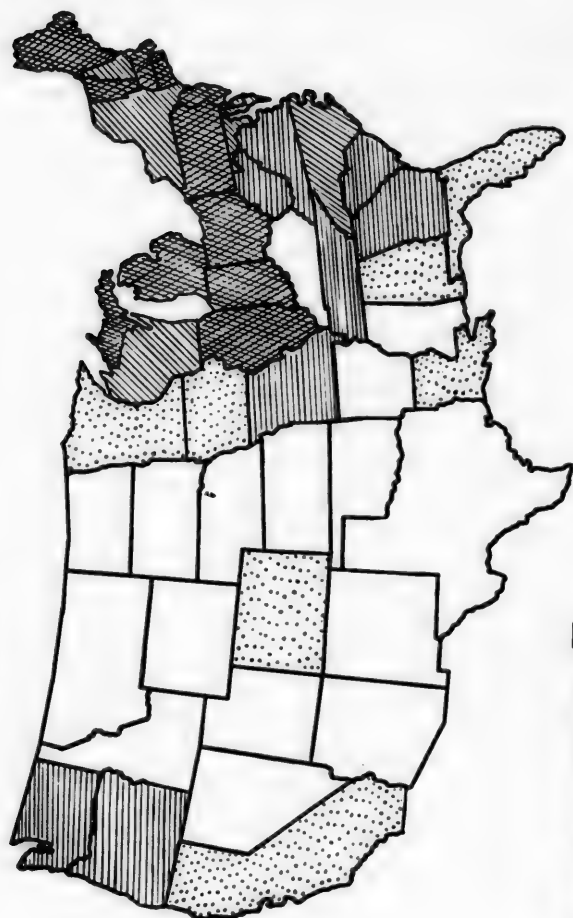
The American Manufacturing Frontier, 1920

MAP VII



The American Manufacturing Frontier, 1930

MAP VIII



ESTABLISHED MANUFACTURER
 EQUIPPED MANUFACTURER
 SETTLED MANUFACTURER
 FRONTIER MANUFACTURER

The American Manufacturing Frontier, 1940

TABLE III

NET CHANGE OF PRODUCTION VALUE OVER PREVIOUS CENSUS IN OHIO, 1880-1900
(In millions of dollars)

Year	Change in the value of agricultural products over the previous year	Change in the value of manufactured products over the previous year
1880	- 41.5	+206.4
1890	- 23.6	+263.4
1900	+123.9	+190.7

In all five of these states agricultural product value decreased sharply in 1880 and 1890 and increased just as sharply in 1900. Manufacturing product value did just the opposite, increasing sharply in 1880 and 1890 but increasing only slightly in 1900.³

Another curious thing happened in 1940 in the Established Manufacturers category. Delaware and New York dropped from this classification to the Equipped Manufacturers classification. Concurrently, the activity in other states which had been in the Established Manufacturer classification for many years suggested that they too would soon decline to the Equipped Manufacturer classification. Manufacturing provided 96.0 per cent of the products and 24.6 per cent of the employment in New York in 1930. By 1940 it was still providing 95.8 per cent of the products but only 20.5 per cent of the employment. The same thing happened in Delaware. Manufacturing provided over 85 per cent of the product value in both 1930 and 1940, but manufacturing employment decreased from 27.3 per cent in 1930 to 21.0 per cent in 1940. There were similar decreases of these types in the other Established Manufacturers in the eastern coastal states.

The reason for this change lies in the measure of the value produced by manufacturing and in a basic change in the economic behavior of these states. In 1870 the measure used in this study was quite acceptable because it more closely represented a gross product for each state. Even today these three segments make up a majority of the gross product of the Frontier Manufacturer areas. But a change has taken place in the economy that is not reflected by this measure. There has been a vast growth in the service industries in this nation — industries which are not represented in the statistics for manufacturing, mining, nor agriculture. The absolute importance

³ W. L. Thorp and W. C. Mitchell, *Business Annals*, National Bureau of Economic Research, Inc. (New York, 1926).

of agriculture and mining in New York and Delaware has long been insignificant in relation to the total production of these states. But the service industries have made great strides and currently account for much of the production and employment in each of these states.

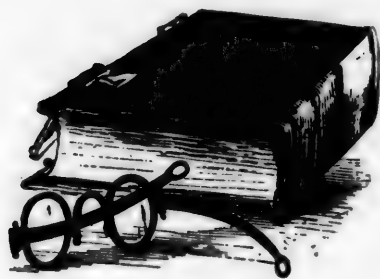
This does not invalidate the measure. It has shown what it has been asked to show. The relative importance of manufacturing in the various states of the nation has changed. Not only have the agricultural states become manufacturing states, but the manufacturing states have moved on to some new, higher level — perhaps a different frontier.

The measures employed dramatize the westward movement of a manufacturing frontier. By 1940 it appears that the frontier had long ago passed through New York and Delaware. The concentration of American manufacturing on the East Coast had declined in the relative sense. Manufacturing in these old Established Manufacturers is remaining constant while it is growing in the western and southern areas of the country. Manufacturing is growing in the former agricultural areas of the nation.

Contemporary experience suggests a movement of manufacturing away from the old seats of activity. The 1955 and 1956 area studies by the Chicago Federal Reserve Bank provide examples of this movement.⁴ They show an increasing level of manufacturing being carried on in such cities as Flint, Indianapolis, Fort Wayne, Milwaukee, Decatur, Waterloo, and Madison. They show a greater concentration of heavier industry in new areas.

The manufacturing frontier has already passed through the older eastern states. A new industry, the service industry, is replacing it, just as manufacturing replaced agriculture, and just as agriculture replaced the earlier extractive industries. The cities named in the area studies of the Federal Reserve Bank of Chicago will be the manufacturing centers of the future.

⁴ Federal Reserve Bank of Chicago, *Annual Report, 1955, Growth and Prosperity in Five Midwest Cities*, F. R. B. (Chicago, 1955); and *Annual Report, 1956, Big Thriving Economies: Indianapolis and Milwaukee*, F. R. B. (Chicago, 1956).



BOOK REVIEWS

PRECISION POWER: THE FIRST HALF CENTURY OF BODINE ELECTRIC COMPANY. *By Howard F. Bennett. New York, Appleton-Century-Crofts, 1959. Pp. xiv + 336. \$6.00.*

**Reviewed by Harold C. Passer
Rochester, New York**

This book is the story of the Bodine Electric Company, a Chicago manufacturer of fractional horsepower motors with over 600 employees and sales close to \$10 million. As a business history, Professor Bennett's study is outstanding, its particular merit deriving from a detailed analysis of the history of a small firm which has remained relatively small and from the very considerable attention given to the economic, social, and political environment in which Bodine Electric has operated.

Carl D. Bodine (born 1881) and Paul J. Bodine (born 1883) were the sons of a Swedish carpenter, John P. Bodine, who emigrated from Sweden in 1886 to Loomis, a small town in south central Nebraska on the Chicago, Burlington, and Quincy Railroad. Their interest in electricity was first aroused by the electric lighting equipment of the Loomis flour mill which was built in 1895. Several years later Carl, and then Paul, went to Chicago to work in the manufacturing plant of the Stromberg-Carlson Telephone Company. They supplemented work experience at Stromberg-Carlson, Kellogg Switchboard, and other electrical manufacturing companies in the Chicago area with studies at West Division High School and Lewis Institute. By 1905, the Bodine brothers had sufficient training and experience in the electrical industry to see the potential in one particular segment of the rapidly expanding market for electric motors. They had become convinced that there would be a growing demand for small (i.e., fractional horsepower) motors if these could be made to give long and reliable service.

In May, 1905, the two brothers formed the Bodine Electric Company and opened for business in the loft of a building near Chicago's Loop. They offered for sale their own line of small motors but also carried on an electrical installation and maintenance business. In 1905 they sold only 4 motors, but sales the next year were nearly 200 and by 1910 annual sales exceeded 1,000 with a sales value of \$14,000. Their first customers were makers of dental drills, sign flashers, office equipment, therapeutic and medical equipment, laboratory equipment, and railway signal equipment. These companies, nearly all in the Chicago area,

were contacted in person although in some cases the initial contact was through direct mail advertising.

By 1910 the Bodine Electric Company was firmly established. That year the electrical contracting business was abandoned and floor space was increased. In 1914 the company was incorporated and in 1915 it moved into its own new building with 8,500 square feet of floor space. In the following years, sales continued to gain, reaching nearly \$250,000 and 15,000 motors in 1920; over \$600,000 and 50,000 motors in 1929; and nearly \$6 million and 350,000 motors in 1955. The number of employees increased from 3 in 1905 to 22 in 1912, 100 in 1928, and nearly 600 in 1955. Net worth rose from the initial investment of slightly over \$1,000 in 1905 to more than \$4 million 50 years later (an average annual rate of increase of about 18 per cent per year for the half century).

As is well known, the electrical manufacturing industry is one of large firms. In heavy electrical equipment (large generators, motors, transformers, and switch gear) there are three major producers: General Electric, Westinghouse, and Allis-Chalmers. In fractional horsepower motors, General Electric, Westinghouse, and General Motors are the Big Three who together produce about half the dollar volume of small motors. The next 22 producers of small motors make about 35 per cent of the total which leaves 15 per cent of the business for about 200 companies. Bodine Electric Company with about 1 per cent of the total industry sales of fractional horsepower motors is one of the 200.

An important question, and one of interest to economists, economic historians, political scientists, and others (including Marxist economists, as was indicated by the six Russian economists who visited the United States under the auspices of the Committee for Economic Development in the fall of 1959), is how small firms are able to survive in competition with large firms. The latter have well-known advantages in the competitive struggle such as financial strength, marketing strength (national distribution, large advertising budgets, consumer acceptance), research and engineering talent, and efficient production facilities (which may require patents, know-how, and a large investment of capital). What does the small firm have that enables it to survive, or better yet, to grow and prosper, like Bodine Electric?

It is to Professor Bennett's credit that he discusses this question explicitly and provides a large amount of supporting information. The product and market characteristics of fractional horsepower motors are the main reason that small firms have an important place in that industry. The small motors are in most cases an essential but small part of an item of equipment such as an office machine or control instrument. This suggests an inelastic demand. Reliability of the motor is crucial, and continuous operation with little or no maintenance is often required. This suggests an emphasis on product quality rather than price. Fractional horsepower motors are tailor-made for thousands of special types of equipment and over 90 per cent of these motors are manufactured to the precise specifications of an individual customer. This suggests many markets for small motors, rather than a few, and an emphasis on special motor adaptations and customer service.

In this kind of market situation, a small firm that produces a high

quality product can prosper by concentrating its limited financial and technical resources on certain specialized motor types. Bodine Electric has done just that. It has concentrated on the subfractional motors ($\frac{1}{20}$ horsepower and less) and especially those with integrated speed reduction gears. For its major markets, it has developed specialized motors to serve the particular needs of each use. The result of this concentration on relatively few markets has been that six markets (office machines, instruments, therapeutic devices, photographic equipment, communications equipment, and machine tools) account for about two thirds of Bodine Electric's sales. And in all of these markets but one, its share is fairly high: office machines, 23 per cent; instruments, 30 per cent; therapeutic devices, 90 per cent; photographic equipment, 40 per cent; communications equipment, 6 per cent; and machine tools, 50 per cent.

Professor Bennett makes it clear that Bodine Electric's policy of producing a reliable, high-quality, specialized, precision motor was established at the firm's beginning in 1905 and has, with only temporary deviations, been adhered to ever since. This policy has been consistent with a reasonable degree of market diversification in terms of end-product use and also with participation in the growth areas of the economy. It is interesting to see that some of the newest, most technically advanced, and most rapidly growing markets are exactly those that require small motors (electronic computers, automatic vendors, tape recorders, scientific instruments, automatic control devices, office machines).

A second important question about a small business is why it has remained small. In the case of Bodine Electric, the answer is clear. The Bodine brothers wanted to keep the business a family enterprise. In 1959 the Bodine Board of Directors consisted of Carl Bodine, his two sons, Paul Bodine, his two sons, and Elmer Larson, a cousin of the elder Bodines who started with the company in 1912. Another relative, Gustaf Anderson, a brother of Mrs. Carl Bodine, was with the company from 1916 until his death in 1948. His son, Herbert Anderson, is currently office manager and purchasing agent. The six Bodines, Larson, Anderson, and their wives own all of the Bodine Electric stock.

One question which Professor Bennett does not discuss is whether a firm which is entirely owned and operated by one family (and therefore with limited opportunities for outsiders) has difficulty in recruiting the highly capable managerial and technical personnel that a firm must have to survive in an intensely competitive industry with a rapidly advancing technology. There is some evidence of a high rate of turnover of sales managers in the 1920's. Paul Bodine handled sales in the early 1920's but Leroy Hill, appointed sales manager in 1927, resigned the next year and was succeeded by H. A. Hallead who, in turn, resigned in November, 1929. At that time Paul Bodine again took over the duties of sales manager.

Professor Bennett covers many facets of Bodine Electric's history which can only be alluded to here. Management changes, the sales and distribution organization, the geographic location of markets, financial matters, production during the two world wars, employee relations — all of these subjects and many more are treated as fully as space and available information allow. Of particular interest is Professor Bennett's discus-

sion of the background economic, social, and political factors that were part of the environment in which Bodine Electric operated. The effects on the company's business of all major economic expansions and contractions from 1905 to 1955 are discussed in some detail, including a comparison of Bodine with the rest of the electrical manufacturing industry. Similarly, the impact of the two world wars and the Korean conflict on American business in general and on Bodine Electric in particular is given interesting and elucidating treatment.

Professor Bennett has written an important book which could well serve as a model for business histories. If it is true that "the business of America is business," this history is an illuminating source for learning about the core activities of American life.

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THE ELECTRIC INTERURBAN RAILWAYS IN AMERICA. *By George W. Hilton and John F. Due. Stanford, Stanford University Press, 1960. Pp. ix + 463. \$9.50.*

Reviewed by William C. Stewart
Ohio University

Professors Hilton and Due have produced an excellent study of an industry which rose and fell within a short period of approximately 60 years. The number of industries available for such exhaustive study are small in number, but few were as important in their time as the interurban railway. The first began operation in 1890 and at the peak just prior to World War I there were over 15,000 miles of line in operation. Today there are just over 200 miles in service, one half of which are scheduled for abandonment. It was an industry of rapid growth, followed immediately by equally rapid decline and never experiencing a period of relative stability. By 1916 the network was virtually complete, and starting with 1917 the miles abandoned exceeded the miles built in every year. No important mileage was built at all after 1927.

The organization of the study is interesting and could well be held up as a model plan for any industry study. The book is divided into two parts, the industry and the individual companies. The industry portion is arranged chronologically presenting chapters on the early promotion of the railways, problems of traffic, regulation and finance, and finally, decline and abandonment. The latter chapters contain some interesting analyses of the economic problems of the industry. The second part contains thumbnail sketches of every operating interurban with state maps showing the major connections.

Perhaps the most important thing that can be learned from the study of a dead industry is why it died. The authors have devoted two chapters to a study of the causes of decline and abandonment and despite the paucity of reliable information they have produced some worthwhile analyses. For example, they have constructed annual figures of rate of return and operating ratio by extrapolating quintennial Bureau of Census figures through the use of a sample of representative firms. As a result, they found that even in the best of years, rate of return did not exceed a meager 3.2 per cent. Even allowing for a considerable amount of water in the capitalization, return on actual investment did not exceed 5 per

cent. A further analysis of the relationships of cost per passenger mile to traffic density yielded data regarding the effect of changes in traffic volume upon fixed and variable costs. Summed up, the data show that the industry was not able to become financially sound in time to prevent competing forms of transportation, particularly the automobile, from overtaking and eventually destroying it. It was a complex of companies for the most part dependent upon connection with one another and as the weakest links were destroyed, the entire network began to fall.

Again, the effects of overoptimism are apparent. Maps of every system are provided and clearly show that many lines could not have succeeded under the best of circumstances. Many connected mere villages and one terminated at a crossroads. Further, several companies would be projected to connect the same points with the result that most could not even get off the ground due to competition for capital. Further studies of the maps indicate the essentially local character of the industry. In Ohio, connections could be made from Cleveland to Columbus, but only over a meandering route of three different companies. In southeastern Ohio there were seven companies connecting only two or three small towns with no further connection to population centers. Some large amalgamations occurred such as the Indiana Railroad and the Ohio Electric, but for the most part the industry suffered from lack of planning and had no time to consolidate as companies began to fail with increasing rapidity.

The two chapters dealing with decline and abandonment are significant additions to economic literature. In case after case, managements continued to ignore the definite downward trends in the industry. The authors conclude that the management remained optimistic too long and that many companies continued to operate far beyond the point when logic would dictate abandonment. They have collected data showing companies with as many as 19 consecutive loss years before throwing in the sponge. Even then, it might take an expensive accident to convince them finally to quit. It was a peculiarity of the industry that, as roadbed and equipment were already installed, companies could continue to operate as long as maintenance could be deferred and out-of-pocket costs were covered.

For the last 20 years there have been several electric railfan organizations actively collecting data and producing useful histories of individual roads. A review of the footnotes indicates that frequent reference has been made to their publications and to other reliable sources. The authors have done a good job in the use of available source material and the book is well documented. Finally, they have arranged with one leading railfan magazine for the publication of any errata that may be found. In summary, it is a scholarly piece of work on a practically forgotten industry.

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THE INCREDIBLE KRUPPS. By *Norbert Muhlen*. New York, Henry Holt, 1959. Pp. 308. \$5.00.

Reviewed by *Klaus H. Wolff*
Middlebury College

Readers of this journal devoted to business history will not learn much from this book, but at best it will provoke some thought and provide an evening's entertainment. The author, who specializes in things German—he has written on Schacht and on the "Return" of Germany—is a competent writer of the journalistic type who can make a "story" out of the history of the Krupps.

If, as the jacket says: "The material of this book is based on years of scrupulous research which included several trips to Germany where [the author] had access to confidential files and scores of personal interviews with key figures," it is regrettable that no more has come of it. A real history of Germany's most important steel firm would have been most interesting and instructive. Here you get no more than "The Rise, Fall, and Comeback of Germany's Industrial Family" as the subtitle promises, and you don't get very much of that. The whole second half of the book is devoted to the years since 1933, and the last five of the fourteen chapters, nearly one third of the book, to the time after World War II. This makes for quite interesting reading, but not of business history.

There is one interesting thought to ponder: The firm of Krupp has always believed in three things: (1) it should stay out of politics, be apolitical, leave politics to the government and let business attend to business; (2) the firm should remain in one hand as a family enterprise only; and (3) the members of the firm should think of the firm, work for the firm, live for the firm only. Had the firm of Friedrich Krupp been known for its sausages, none of these house rules would ever have aroused any interest. Being in steel, the devotion to business and the firm has subjected the owners to spectacular notoriety and the most severe criticisms. Is there perhaps a feeling abroad that the making of steel should really not be run as a business like any other business? Some such question seems to be lurking between the lines of this book, although it is a question so much larger than the scope of this work that the author does not even hint at it.

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CHAIN STORES IN AMERICA, 1859-1959. By *Godfrey M. Lebharr*. New York, Chain Store Publishing Corporation, 1959. Pp. 401. \$6.95.

Reviewed by *George Sternlieb*
Harvard Graduate School of Business Administration

"Fifteen years ago," wrote Edward Filene in 1937, "the department store was considered the latest and most up to date form of retailing. Within a short decade, however, its development has been overshadowed by the tremendous growth of the chain store organizations which have swept the country."

The rise to dominance of the chain-store form of organization, which is chronicled ably in this book by the editor of *Chain Store Age*, has

transformed more than the forms of American retailing alone. The decline of the independent wholesaler and jobber are certainly, in major part, a tribute. The homogenized main streets of our towns in the 1920's and early 1930's, as chronicled so vividly by Sinclair Lewis, were equally a result of the growth of the chains.

Future business historians may very well point to the last decade as marking the beginning of the end of small-scale individual retail entrepreneurial activity. The growth of shopping centers financed on the credit of the AAA tenants has given the chain form of organization renewed vigor. The disparity between the lease terms available to national chains and local tenants, currently the subject of a congressional investigation, is accepted fact to anyone in the field.

In view of these recent developments Mr. Lebharr's book should arouse much interest. It is most useful as a handy compendium of statistical data on major chains. Chapters on the lobbying which attended the attempts at antichain legislation between the two wars are particularly useful. Business historians — and other chroniclers of the American scene — may well speculate on the significance of the diminished attention in our own time to the plight of the small independent.

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KITTY HAWK TO SPUTNIK TO POLARIS. By Eugene E. Wilson. Barre, Massachusetts, Barre Gazette, 1960. Pp. xviii + 231. \$5.00.

Reviewed by John B. Rae
Harvey Mudd College

This book is subtitled "A Contemporary Account of the Struggle over Military and Commercial Air Policy in the United States." As such, it is undoubtedly of more interest to students of strategy and foreign policy than to students of business history; yet it has something to say to the latter. For one thing the author, then president of United Aircraft, was asked by James V. Forrestal in 1943 to get the members of the aircraft industry to cooperate in the formulation of a postwar aviation policy. His account of his mission is revealing in its description of the attitudes and interrelationships of the manufacturers, the air transport companies, and an assortment of government agencies and personalities.

Thus while Mr. Wilson has not given us anything resembling a history of aviation, he has provided some personal sketches of his contemporaries in aircraft manufacturing, men like Douglas, Kindleberger, and Northrop, which have definite value for the historian. He has also described a difference in point of view between the two branches of the industry which offers an intriguing subject for study — namely, that the manufacturing companies wanted a postwar policy of free competition, while the transport companies wanted their business to be closely regulated.

The other important contribution is that it offers a commentary on an important phase of national policy by a man who has no immediate political commitment. Mr. Wilson began his career as a naval officer, but his principal associations with the formulation of broad aviation policy have been those of a businessman — and an outspoken and articulate businessman at that. At least one presidential aspirant comes out in an un-

flattering light, and the author's comparison between the Morrow Board of the 1920's and the Finletter Board of the 1940's (entirely in favor of the former) will be part of the raw material of American aviation history.

What Mr. Wilson has to say about military policy and strategy is provocative and worth reading for its own sake. It is also an element in business history, perhaps indirectly, but the relationship nevertheless exists. The aircraft industry is certainly acutely aware that its development is profoundly influenced by decisions on strategy and weapons systems, so that it is fairly entitled to analyze and criticize the concepts on which these decisions are based. And surely what businessmen think is properly the concern of the historian of business as much as what they do.

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CONSERVATIVES IN POWER: A STUDY IN FRUSTRATION.
By Edwin L. Dale, Jr. New York, Doubleday & Company, 1960. Pp. 214. \$3.95.

Reviewed by William Miller
Ridgefield, Connecticut

This little book by the "economics specialist" for the Washington Bureau of *The New York Times* is a beguiling primer in public finance in the United States during the Eisenhower years. Although Mr. Dale touches upon the place of "foreign aid" in the federal budget, the role of exports in cyclical fluctuations, and the problem of "stagnation" in the context of the cold war, it is with domestic economic policy that he is principally concerned. He contends that, "it is in [domestic] economic matters that the parties, and the forces in society behind them, most clearly divide." The Democrats are his "liberals," the Republicans the frustrated "conservatives" of his title. But it is not, in his opinion, the liberals who have frustrated the conservatives.

By "frustration" Mr. Dale means the Republicans' failure to achieve the "perfectly valid and reasonable objectives" which they carried so confidently to Washington in 1953 after 20 years of viewing with alarm. He avows his own friendliness toward many of these objectives, which "will generally be taken," he says, "at their face value." But his book will not prove useless to Democrats in an election year.

The Republicans' two over-riding objectives were the reversal of inflation and the restoration of old-fashioned responsibility for economic progress to the private sector of the economy. Mr. Dale shows perfectly convincingly that inflation worsened under the conservatives not from any "cost push," but from excessive effective demand; and that demand became "excessive" partly because of the failure of the private sector of the economy to respond sufficiently to encouragement to grow.

High among the Republicans' operational objectives was "balancing the budget," preferably by cutting federal spending to the core. But they found spending very hard to cut, indeed. In 1959 they endured "the biggest peacetime deficit in history," and more shocking still to their way of thinking, the country did not dissolve on that account. Other major goals were surgical reductions in the national debt and in

taxes, with the tax cuts favoring those whose savings, according to conservative ideas, give the principal stimulus to economic expansion. But the debt grew with the deficits; and the conservatives' tax reform of 1954, Mr. Dale says, proved only a windfall to the wealthy.

Additional conservative objectives included "decentralization" of power by saddling poor and unwilling states with essential national programs; "disengagement" from such costly New Deal innovations as cheap rural electricity, farm price supports, and the encouragement of inflationary labor unionism; "containment" or preferably curtailment of the rather more "socialistic" New Deal ventures into housing, social security, and the TVA; and the retreat from "pump priming" measures to "overcure" recessions and slumps. In most of these areas the conservatives were "frustrated" by themselves, largely because, once in positions of power, their doctrinaire opposition to government interference with the economy became tempered by reality.

In his chapter called, "A Tale of Two Slumps," Mr. Dale does report on one phase of conservative action — or inaction — consistent with conservative doctrine. And he concludes that the economy's early emergence from the recessions of 1953-1954 and 1957-1958 was "far more" a story "of luck than of management." "In sum," he writes, "we do not know from the tale of two slumps whether or not modern conservatives have adopted modern economic thought on the business cycle. . . . But there remains a very legitimate doubt whether next time they would move of their own volition if the luck were not running as strongly with them. This doubt is reinforced by several extraordinary speeches by President Eisenhower in the 1958 campaign, in which he took great pride in the resistance of his administration to the 'radical' approach of curing the slump of that year by masses of government spending. Of course the truth is that it *was* cured — or the cure made certain — by masses of government spending. This was, however, mostly spending that the President did not will into existence, and some of which he actively opposed. Next time, who knows?"

One does not have to subscribe to Mr. Dale's theory of party differences to value his analysis of the economic policy of the party in power. The "frustration" of the conservatives remains far more reassuring than their goals.

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COTTON MANUFACTURING IN THE SOUTHEAST: AN HISTORICAL ANALYSIS. By Jack Blicksilver. Atlanta, Georgia: Bureau of Business and Economic Research, School of Business Administration, Georgia State College of Business Administration. Bulletin Number 5, 1959. Pp. viii + 176.

Reviewed by Richard W. Griffin
Auburn University

In a brief volume Professor Blicksilver describes the development of this pioneer industry which was the first to challenge successfully the primacy of agriculture in the South. The title promises more than the author intended to deliver, however, for only a minute fraction of the work deals with the 90 years of southern cotton manufacture in the

years between 1790 and 1880. It is to be regretted that a trend, long-established, to accept the ante-bellum period as one nearly exclusively agricultural is given further credence. This is a shortcoming which has generally characterized books dealing with southern economic development.

Professor Blicksilver has carefully analyzed the development of the southern cotton industry since 1880, and in this manner makes a worthwhile contribution to the literature dealing with the economic history of the section and nation. Essentially picking up the story in 1880 he mentions briefly the efforts toward industrial diversification made previous to 1860, and remarks on the interest which grew in the subject during Reconstruction. Professor Blicksilver might well have indicated the developments in the 20 years after 1860 which saw the breakdown of the hold of the agrarian element on the section's economic growth, which made possible the "Cotton Mill Campaign" in the early 1880's when southerners began in growing numbers to turn their attention to industry and particularly to cotton manufacture.

As Professor Blicksilver points out, the first phase of this industrial transition, after the war, was largely marked by southern attitudes which loved the idea of industrial growth too well rather than wisely. Thus with an almost revivalist fervor the builders of cotton mills began to dot the southern landscape with small and frequently uneconomic mills — with insufficient financing and untrained officers who were unable to compete successfully with the well-established northern mills. The initial rush into the industry threatened to ruin the long-term industrial development of the South. There was available to southern entrepreneurs little outside capital; therefore many questionable expedients were tried to raise capital locally. The bulk of outside financial aid came from machinery manufacturers and commission merchants of the North, who were looking for opportunities to extend their business activities profitably. In this way many companies accepted mill stock in exchange for machinery, and commission houses provided working capital in return for exclusive marketing privileges. With local capital and these outside sources the southern manufacture of cotton made faltering steps toward competition with the mills of New England.

The operation of many new mills rapidly exhausted the small supply of southerners with textile mill experience and made it necessary for many companies to import supervisory personnel from northern mills, not always with complete success. There were, however, also examples of mill hands of the ante-bellum period who were, because of their experience, thrust into positions of leadership and trust by the demands of a rapidly expanding industry. While men of the New South — men like Tanner, Callaway, Cannon, and Comer — performed invaluable services to the industry, Professor Blicksilver fails to give due credit to the foundations laid and successful plants carried on by those of the Old South — such men as W. S. Battle, George P. Swift, D. E. Converse, Edwin Holt, and Daniel Pratt, who were among the vanguard of the postwar developments. These are a few of the numerous instances of ante-bellum cotton manufacturers who carried their enterprises through all the problems of war and reconstruction.

The first 25 years of the industry's revival after 1880 were years of trial, years in which many mills failed, but by 1905 the advantages and opportunities that these southerners had displayed in expanding the section's manufacture of cotton had raised the region's share of the industry from a very small percentage to about one third that of New England. This phenomenal growth forced many northern mill owners to recognize the South's advantages as represented by cheap and docile labor, adequate water power, which was being used not only to run mills directly but also to produce electric power to operate mill machinery, and the temporary advantage in freights of having the cotton factory in the cotton field. The result was the accelerated transfer of companies from New England to the South, especially for the manufacture of coarse yarns and fabrics.

The mill men who in the 1880's and 1890's had purchased used machinery from northern mills which had adopted newer improved equipment were in a better position after the turn of the century to buy even newer and more productive machines. The result was that by 1914 the more modern southern plants were producing two thirds of the nation's coarse goods and slightly more than half of the medium goods. The remarkable advance of the southern industry was materially aided by low taxes, low wage scales, and the more extensive employment of children and women. The paternalism of the southern mill owners, however, did not make up for the reduced standard of living of the employees — this was especially true for the mill hand who had no real appreciation for the recreational, social, or educational facilities thus provided.

The years from 1910 to 1923 saw the increasing growth of southern cotton manufacture which rapidly reduced the gap between the southern and northern cotton textile production. The profits of southern mills remained relatively high and steady, while those in the North were cut by high labor costs, higher taxes, and obsolete machinery. In the opinion of Professor Blinksilver there was no real hope for the New England mill to meet the challenge of the southern industry. The New England mills produced more fine goods but the bulk of the industry was increasingly centered in the Southeast.

As the period between the wars passed, the North lost irretrievably its leadership in the industry. The advantages in moving operations to the South were irresistible. Between 1923 and 1940 the growth of world competition, fashion changes to synthetics, higher wages, more government control, and consequent lower profits and dividends signaled the end of the halcyon period of the American cotton industry. However, while New England mills were liquidated at an increasing rate, new and more modern mills arose in the South, and by 1933 it controlled 63 per cent of the nation's spindles.

The 1920's and 1930's, despite the growing monopoly of the South in the manufacture of cotton, were years of cotton textile depression. In these years the industry turned more attention to correcting some of its most difficult problems: to greater support for research, to constant modernization, and to improved techniques of manufacture, advertising, and salesmanship. The Great Depression retarded these necessary improve-

ments, and the Second World War made them temporarily unnecessary. After the war, however, the New England position rapidly disintegrated and southern manufacturers renewed their corrective measures.

The last decade has brought greater maturity and strength to the southern industry through the consolidation of many small mills into larger units which, with increased capital and profits, have been able to finance research and attempted consumer re-education. The impact of research which produces new and highly attractive cotton products has seen the revival of the industry on a smaller but more solid footing.

This volume is not intended as a definitive work by Professor Blicksilver and it is not such. It is a good survey of the developments in the southern cotton industry in the past 80 years. Professor Blicksilver is one of the growing band of historians and economists who are students of the new industrial and urban South as contrasted with those who have been too long concerned with the legendary Old South. His work is excellent within itself, and will serve, this critic hopes, as a stimulant for more research, writing, and publication in this aspect of southern history from 1790 to the present.

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EMANUEL L. PHILIPP, WISCONSIN STALWART. By Robert S. Maxwell. *Madison, State Historical Society of Wisconsin, 1959. Pp. xvi + 222. \$6.50.*

Reviewed by Herbert F. Margulies
University of Hawaii

Political historians will find more to interest them in this book than will business historians. Emanuel Philipp was important chiefly as Robert M. La Follette's outstanding Wisconsin opponent, and as a three-term governor. But Philipp was more than a politician. He was also a highly successful and self-made man of business. Roughly one fifth of Professor Maxwell's book deals with that aspect of his career. Business historians may find Philipp's public career of interest too, for Philipp was both a lobbyist for certain corporations and, in his later days, a champion of what he fancied to be the business philosophy of government.

The pages devoted to Philipp's business career are few and in several ways unsatisfactory. Factual material is necessarily limited, and analysis even scantier. Even so, the first three chapters and scattered passages elsewhere add something to business history in two respects. Emanuel Philipp's business career paralleled part of the early development of the refrigerator car industry, itself a segment of the private car industry, which included sleepers, tank cars, stock cars and beef cars. This book offers some information on the workings of an important firm in that industry. The book also adds a few touches to the composite portrait of the successful American entrepreneur. Though not a giant of industry (except physically, perhaps, for he weighed close to 300 pounds), Emanuel Philipp did rise from humble origins to become a millionaire and a leader of the Wisconsin business community. He accomplished something, and one may well ask how he did it.

Philipp was the right man at the right time. When he set out on his

own in the refrigerator car field, the industry had passed through its earliest experimental phase and was moving into a period of growth and profits. Independent refrigerator car companies, such as Philipp's Union Refrigerator Transit Company (URTX), had competition from three sources; some railroads built and owned their own refrigerator cars; other railroads organized subsidiaries to own and manage them; and certain shippers of perishable goods, chiefly the major Chicago meat packers, owned their own fleets. But it was a business that called for some specialized knowledge and that tied up a good deal of money, so all small firms and most large ones found it cheaper to rent than to own refrigerator cars. When Philipp began to give his full attention to the business, in 1903, his most important single customer was the Joseph Schlitz Brewing Company of Milwaukee. Though prohibition dealt a death blow to this source of business, transporting of highly perishable fruits, vegetables, milk and dairy products more than made up for the loss during the early 1920's.

To some extent Philipp's business success was based on whom he knew, not what he knew. His first road to success was a railroad. He'd worked his way up from the bottom as an employee of the Chicago and Northwestern, switched to the American Refrigerator Transit Company and the Union Pacific Railroad and finished his pre-entrepreneurial career as a traffic manager, lobbyist and general trouble-shooter for the Joseph Schlitz Brewing Company. His railroad and brewing connections were invaluable to him in his career as a magnate.

But he benefited also by the knowledge that he'd accumulated. When he launched his own business, that on a shoestring, he was thoroughly familiar with the problems of proper car allocation, repair, maintenance, and design.

Part of Philipp's success was seemingly due to his character. Professor Maxwell tells us that Philipp earned the confidence of the people who proved important to him not simply by his ability, but his perseverance, willingness to assume responsibility, and integrity. He was a skillful salesman, but he did not rely on tinsel.

Philipp's political career took a surprising turn. He served as La Follette's favorite whipping boy for years. But as governor, from 1915 through 1920, he surprised the progressives by showing far greater honesty than they'd attributed to him, great growth of understanding, considerable administrative talent, and the courage and conviction to resist the super-patriots in their attacks on civil rights during and after World War I.

Interpretation of Philipp's actions in business and politics depends a good deal on an evaluation of the man as a person. His actions do not always speak for themselves. Unfortunately, the personality does not come through, and one must rely on the haphazard adjectival judgments of the author.

The volume of research behind this book is not impressive, but is respectable. Judgments tend to be conventional, and are sometimes not even based on contemporary convention. For example, the view that Wisconsin alone moved to the Left in the election of 1920, while the rest of the country reverted with Harding to conservatism, has been

widely repudiated in recent years. Maxwell puts it forth without apparent awareness of alternatives. The prose style is dull but clear.

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THE A.F. OF L. FROM THE DEATH OF GOMPERS TO THE MERGER. By Philip Taft. New York, Harper & Brothers, 1959. Pp. 499. \$7.50.

Reviewed by Bernard Mandel
Fenn College

This volume concludes Professor Taft's history of the A.F. of L. As one would expect, it has essentially the same merit and the same deficiencies as the previous work. Its principal value lies in the vast amount of factual material that Taft has studied and presented, mainly from the correspondence, the Executive Council minutes, and the convention proceedings of the Federation. The comment of the *American Economic Review* on the first volume is precisely applicable to this one: "The result is a massive, richly documented work of scholarship which will long remain a standard source of reference."

Quite surprising is the almost complete lack of reference to the *American Federationist*, an indispensable source. A more serious defect in the use of sources, however, is Taft's failure to go outside of the Federation's archives except in a handful of instances. For example, Taft has almost completely neglected the newspapers, periodical magazines, government documents, biographies of and autobiographies by labor leaders, or even the publications of affiliated unions. This results in several weaknesses in the book.

First, some matters are not fully presented, such as the development and implications of the wage policy of the 1920's (the B. & O. Plan), the outcome of an important textile strike in 1926, and the Federation's role in the election of 1932. One suspects that Taft simply did not go beyond the A.F. of L. archives to search for the material necessary to complete the account of these and other matters. Second, excessive reliance is placed on the utterances and writings of the Federation and its officers. This sometimes makes it very difficult for Taft to be as objective in his presentation and analysis of certain topics as he always tries to be.

Third, and most important, the limited use of other sources results in a history which is almost exclusively "institutional." That is, there is insufficient presentation of the background against which the Federation formulated policy and undertook action. Thus, we see little of the mass upsurge of the unorganized workers and the changing attitudes and ideas of the organized workers that were so instrumental in the industrial organization movement, the formation of the C.I.O., the growth of the A.F. of L., and the development of the New Deal. The reader gets little inkling of the drama that swirled behind, around, and through the A.F. of L., that gave it life, that explained the meaning of what it was doing and why it was doing it. Taft has dissected the body of the A.F. of L. and laid its mechanism before the reader, but he has not revealed its personality, its nervous system, or the environmental factors that shaped its character and triggered its behavior.

The book is almost entirely on the descriptive level, with a minimum of analysis or interpretation. This reviewer would have welcomed a fuller evaluation of the effect of the Taft-Hartley Act and of the reasons for and significance of such topics as the inactivity of the Federation in the 1920's, the expulsion of the C.I.O. (other than a "paralysis of intellect" and "blind hatred and fear," which really explains nothing), and the growth of racketeering in the Federation.

Professor Taft's skill as a historian is not matched by his literary ability. Long, involved sentences, frequent repetition (he says the same thing no less than three times in one paragraph on page 48, twice in the same words), and a plodding, eyes-on-the-ground style will unfortunately keep most nonspecialists away from the book. But, while it may not be the "definitive history" that its publishers claim it to be, students of the labor movement will certainly find it indispensable for a long time to come.

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THE DEVELOPMENT OF BANKING IN THE DISTRICT OF COLUMBIA. By David Cole. New York, William-Frederick Press, 1959. Pp. xx + 629. \$10.00.

Reviewed by Lester V. Chandler
Princeton University

This is a comprehensive study of all the banking institutions that were established in the District of Columbia over a period of 162 years, from 1792 to the end of 1954. The District's banking history began even before it had a separate government, and while the areas ceded by Maryland and Virginia were still under the jurisdiction of the governments of those states. The Bank of Alexandria was created by the Virginia Assembly in late 1792; a year later the Maryland Assembly countered by establishing the Bank of Columbia in George Town. From that time, until the establishment of the national banking system in 1863, the District struggled with banking controversies and problems, most of them similar to those in other areas though modified by conditions in the region and especially by the fact that government was the District's principal industry. Here, as elsewhere, there were bitter debates as to the usefulness of banks anyway, contests over the granting and extension of bank charters, controversies over the rights of unchartered banks to operate, numerous failures, and even more banking abuses.

Since the Civil War the District's banking history has been perhaps less colorful but far from uneventful. It too has had its banking panics, struggles between national and other banks, branch banking controversies, and so on.

Students will find this study useful for several purposes: as a biography of the many individual banks established in the District, some to live only briefly and others to prosper; as a part of the economic history of the Maryland-Virginia region; and as one aspect of the prolonged and painful process of developing an American banking system.

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A LIVERPOOL MERCHANT HOUSE: BEING THE HISTORY OF ALFRED BOOTH AND COMPANY, 1863-1958. By A. H. John. London, George Allen & Unwin, Ltd., 1959. Pp. 197. 21s.

Reviewed by Stuart Bruchey
Michigan State University

Here is a model memoir; its frank purpose is to commemorate the founders and associates of a family concern now in its third generation; but in what is done and in the manner of its doing the distinguished economic historian, A. H. John, deepens the indebtedness to him which we first contracted with the publication of his fine study of the *Industrial Development of South Wales, 1750-1850*. Professor John's work, like that of Charles Wilson, and, as we shall shortly see, that of Peter L. Payne, illustrates the British flair for business history. There is more than a marvelous fitting of the glove of words to the hand of the past. Their firms move with the rhythm of industry and with the ebb and flow of still more primal waves; yet there is more than this, too. In British hands business history becomes almost social history, as in the end business and economic history will have to be, and glows with the warmth of human effort running in channels long neglected, yet belonging to the essence of the material past. Because they were not only eminently successful managers of world-wide enterprise, but also conductors of great social inquiries into the life of the London population of their day, and, besides, men who were "uncompromising in the practice of Nonconformist ethics, cultured, and radical in political outlook," the Booths resist reduction to mere factors of production. They were men as well as businessmen and their qualities as men belong not to the parameters but to the essence.

Beginning in 1863 as a mercantile partnership with a modest capital of £14,000, Alfred and Charles Booth parlayed conservatism and their application of specialized knowledge to a variety of smaller trades into a capital well in excess of half a million pounds by 1912, soon after which the firm incorporated. Between those dates it had undertaken many activities, both on its own account and on commission, although the core was, first, the export to America of English light leathers, then, after 1890, the manufacture of glazed and mat kid, together with steamship service to northern Brazilian ports. This Booth policy of diversification was deliberately pursued: it resulted in a "widespread but generally inter-connected business," created a "well-balanced structure," and helped provide "insurance against catastrophe." The constituent elements of diversification changed, particularly with the addition of civil engineering and construction following World War I, but the pattern never did. Having disposed of its entire shipping concern in 1946 the firm continues to be a supplier of leather to the United States, a manufacturer of leather goods in England, and an employer of 3,500 men in the English and Irish construction industry.

In reconstructing the fortunes of the Booths, Professor John has been obliged to rely upon partnership letters and personal interviews, the earlier accounting records having failed to survive the war. He quotes liberally from these sources, often supplying specific profit figures, but

his technique, while emphasizing management and sources of capital, is generally to give us the gist and outcome of decisions rather than the coloration of daily detail. John's is an honest book: freights were "determined by what the market would bear"; following a strenuous rate war between German and English ships in the Brazilian trade there occurred a "pooling of European freight and passenger earnings." But few readers will dissent from the author's judgment upon the two founders of the house of Booth: "In their fine intelligence, their unremitting industry and their deep sense of social obligation, both were in the best tradition of Liverpool merchants of the nineteenth century."

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FIFTY YEARS OF MARKETING IN RETROSPECT. By Paul D. Converse. Austin, Texas, Bureau of Business Research, University of Texas, 1959. Pp. 104. \$1.50.

Reviewed by Kenneth H. Myers
Northwestern University

This is a loosely connected series of reminiscences on a wide variety of topics which are more related to the growth of the economy in general than to "marketing." Written by the son of a country preacher who became a "pioneer" in the systematized study of marketing as a business function, *Marketing Methods and Policies* (New York, 1921), and the author of a perennially popular basic text in marketing, *Elements of Marketing* (6th ed.; New York, 1958), with co-authors Harvey W. Huegy and Robert V. Mitchell, the present work suggests that a lifetime of descriptive study does not necessarily result in any great degree of sympathy with the trends of one's own culture. The author's biases in this respect are of some interest. On foreign aid in the post-World War II period: "This is a new kind of economics; in short, the United States is giving goods away so that it can have the fun of making them." (P. 90.) On the propensity of the business system toward depression:

Business is a cycle. . . . This is a fine system when it works. . . . But it is a sensitive system that easily gets out of balance. It has usually gotten out of balance once in every generation. . . . government (action) may postpone a breakdown, but the postponement may mean that the break will be worse when the wreck comes. (P. 100.)

On the "gadget economy":

Unemployment is thought of as the worst catastrophe that can happen. Therefore, consumers must buy more gadgets whether they need them or not to keep the economic system functioning and to keep men at work. (P. 97.)

Americans should develop more spiritual, moral, and cultural values and depend less upon gadgets for happiness. Rich people are not the happiest people. (P. 88.)

And "in conclusion":

Whether or not this is good for the soul and the mind, Americans go mer-

rily gadgeting on their way. Where the way leads no one knows and no one seems to care. (P. 104.)

In short, this work views the events of the past 50 years from the viewpoint of staunch "laissez-faire" economics, Midwest isolationism, and a rather puritanical concept of the "good life." Indeed, this must have been a trying time in which to live!

In respect to enhancing one's understanding of historical developments in the field of marketing, the chief value of the work is the description of such matters as the rise of the self-service chain stores, and the decline of wholesale middlemen. These changes are related with a minimum of factual support, and are interesting chiefly because of the author's obvious attachment to the "self-made man" and the *status quo* of his own youth.

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NICHOLAS BIDDLE: NATIONALIST AND PUBLIC BANKER.
By Thomas Payne Govan. Chicago, The University of Chicago Press, 1959. Pp. 428. \$7.50.

Reviewed by Lance E. Davis
Purdue University

Professor Govan has entered the lists against Andrew Jackson and the Second Bank veto (and incidentally against Mr. Arthur Schlesinger, Jr.) and, in so doing, he joins an ever-lengthening list of worthy scholars including Ralph Catterall, Walter Smith and Bray Hammond.

Unlike his predecessors, who have approached their analysis of the relation between the Bank, the veto, and American economic growth directly through a discussion of the Bank's activities, Professor Govan approaches these questions through the life of Nicholas Biddle, and in this biographical approach lie both the strengths and the weaknesses of his volume.

Professor Govan's portrait of his central character is so perceptive that it is almost with surprise that one realizes that it is not Nicholas Biddle who heads the Federal Reserve Board. Through careful and scholarly analysis Professor Govan has produced a biography that uncovers the motives that led Biddle to first build and then destroy his reputation as the greatest central banker of the nineteenth century. Only in the relationship between Biddle and his wife does Govan's brush fail to produce an absolutely clear portrait, but this is a minor matter indeed. Viewed solely as the biography of an amazing man, Professor Govan has written a book of the first quality.

However, the weaknesses of the biographical approach become apparent when the author attempts to assess Biddle's contribution to American economic growth. Because of his preoccupation with his central character, Professor Govan appears to have accepted without reservation Biddle's assumption that a central bank has almost omnipotent powers; and such an assumption leads easily to the conclusion that the bank's detractors must of necessity be wrong. While Professor Govan never makes his assumptions explicit, they seem implicit in much

that he says. For example, in discussing the experience of the United States during the War of 1812:

The urgent need for such a fundamental reform in the national financial structure [the organization of a central bank] was clearly apparent to Biddle. Robert Oliver had already advised him not to invest any more of the Craig estate in Treasury stock, in the belief that the government would be conquered or overthrown in the next few months. . . . What Oliver was doing many other wealthy men had done, and it did no good to denounce them as unpatriotic. The proper remedy was to place the finances of the nation in such a condition that its stock would be an attractive investment. What was needed was a national bank. . . .

Most economists would certainly argue that a central bank can be an important force in economic development, but few would assert that such an institution can accomplish miracles.

Further, despite the author's refusal to employ coloring adjectives, he does appear predisposed to attach certain interpretations to the facts he has uncovered. For example, Professor Govan's evidence on Biddle's association with the newspapers during the recharter fight and later his relations with the government directors suggest a variety of interpretations (in fact the evidence has been interpreted quite differently by other scholars — Carl Swisher, for example). Although the picture of Biddle that emerges may not be as black as some have painted it, still without further evidence it is difficult to conclude, as Professor Govan does, that Biddle was without fault. Similarly Biddle's actions in 1834 — actions excused by Govan on the grounds that Biddle was no longer responsible to anyone but his stockholders — can still be cited as proof of the charges that too much power was concentrated in the hands of the bank's president. Indeed much of the controversy of the period centered not on the question of Biddle's integrity but upon the much more fundamental question of the relationship between the bank and the rest of the economy.

Professor Govan has written a fine biography and has made a considerable addition to our knowledge and our understanding of one of the important figures in ante-bellum America; however, he has failed to convince this reader that Jackson's bank veto seriously impaired the rate of economic growth in America or that Biddle, the banker, never made an important mistake.





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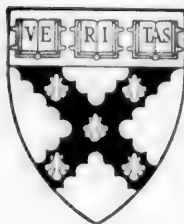
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BUSINESS HISTORY REVIEW



Evans' Cotton Mill

"Second generation" historical efforts are shedding new light on the beginnings of the textile industry. Even fragmentary records, minutely examined, yield vignettes that may one day be merged to form important new chapters of industry history. The Darley Abbey story reveals rare operational detail and an interesting variant in the British pattern of development.

JEAN LINDSAY

ABC and SRDS — Advertising Services

The advertising industry generated remarkably prompt responses, at both the institutional and individual level, to the opportunities and problems of growth. Once associationist activities had achieved a measure of industry self-regulation and self-analysis, individual entrepreneurs stepped in to offer specialized services that grew in value as the professional status of the parties concerned became established and differentiated.

KENNETH H. MYERS

Sixteenth-Century Bookkeeping

Bookkeeping treatises acquired by the Kross Library of Business and Economics, Harvard Graduate School of Business Administration.

DOROTHEA D. REEVES

NAM and Congressional Investigations of 1913

Over a famous Congressional investigation lies the shadow of evidence suppressed for political reasons and long ignored by scholars, who by too glib acceptance of the printed testimony have perpetuated bias as historical fact.

A. K. STEIGERWALT

Business Manuscripts in Baker Library

ROBERT W. LOVETT

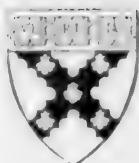
The American Manufacturing Frontier, 1870-1940

Difficult statistical problems notwithstanding, it is possible to trace the course in time and place of a gradual transition from agrarian to industrial pursuits. On occasion, this transition was slowed or reversed by cyclical influences, but the long-term trend of manufacturing concentration was away from the East. As the manufacturing frontier shifted, the service industries moved in and currently employ much of the capital and labor of the old industrial centers.


ROBERT F. SEVERSON, JR.

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ON BACK COVER

BUSINESS HISTORY REVIEW

COVER: Mile Square Cross-roads of World Trade

As two articles in this issue suggest, the City, heart of 19th century commercial London, supplied capital and direction for countless undertakings everywhere. Its teeming streets were the epitome of Victorian economic imperialism.

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The American Business Community and Cleveland's Venezuelan Message

¶ The President's determined foreign policy pronouncement focused attention upon both the lack of unanimity in business circles and a surprising capacity for independent American action in international finance. For historians, the Venezuelan Message is a challenge inviting efforts to probe the depth and longevity of cleavage between public policy sentiment in the financial and industrial-mercantile sectors of the economy.

by Walter LaFeber

ASSISTANT PROFESSOR OF HISTORY
AT CORNELL UNIVERSITY

Historians have generally pictured the American businessman of the 1890's as swimming against the expansionist current which swept the United States into the American-Spanish War of 1898.¹ This interpretation has been especially applied to President Grover Cleveland's declaration of December 17, 1895,

¹ Julius W. Pratt, *Expansionists of 1898; The Acquisition of Hawaii and the Spanish Islands* (Baltimore, 1936), has been the most influential exponent of this thesis. The author gratefully acknowledges the constructive criticism given by Professor David Brion Davis of Cornell.

on the boundary dispute between Venezuela and Great Britain.² Studies of this episode have concluded that American business leaders bitterly attacked the President's message.³ These accounts fail to mention that influential businessmen in New York, Boston, and the Midwest approved Cleveland's policy and commended his creation of a vigorous, expansionistic Monroe Doctrine.⁴

Delivered during the depths of the 1893-1897 depression, the President's message exploded over a business community which already reeled from two years of stagnation, a gold shortage, and a political crisis fomented by the uprising of Western Populists and Silverites. Some financial leaders, especially in New York and Boston, angrily criticized the Chief Executive's statement as ending any hope of immediate business recovery. Peter B. Olney reported from New York to his brother Richard, Cleveland's Secretary of State, that "there is an undercurrent of sentiment among bankers and businessmen of considerable strength, that censures" the message.⁵ Charles Stewart Smith, ex-president of the New York Chamber of Commerce, believed that Cleveland's action, "if pursued to its legitimate end . . . would be the crime of the century, second only to the firing upon Fort Sumter." During the first hours after the message became known in New York, Smith attempted to call a special meeting of the Chamber of Commerce to condemn the President's action. His movement faltered only when Cornelius Vanderbilt and J. Pierpont Morgan decided that such a meeting would not only be of little use, but might strike added fear into British holders of American securities.⁶

Other critics of the message included Frederick D. Tappen, president of the Gallatin National Bank, J. Edward Simmons, president of the Fourth National Bank, and George Williams, president of the Chemical National Bank.⁷ Chauncey Depew dined with

² Cleveland warned Great Britain that she had to submit her case on the dispute to international arbitration or face United States resistance. He ended the message with a thinly veiled threat of force if the British Foreign Office refused to comply. James D. Richardson, ed., *A Compilation of the Messages and Papers of the Presidents, 1789-1897*, vol. IX (Washington, 1900), pp. 655-658.

³ Two of the influential accounts which present this view are Dexter Perkins, *The Monroe Doctrine, 1867-1907* (Baltimore, 1937), pp. 196-198, and Charles Callan Tansill, *The Foreign Policy of Thomas F. Bayard, 1885-1897* (New York, 1940), p. 728. See also Alexander Dana Noyes, *The Market Place, Reminiscences of a Financial Editor* (Boston, 1938), p. 121.

⁴ Tansill does mention in a footnote the *New York World* poll of Dec. 25, 1895, in which 25 commercial groups throughout the United States approved Cleveland's position. Nevertheless, Tansill does not moderate his general conclusion that the American business community opposed the President's policy.

⁵ Peter B. Olney to Richard Olney, Dec. 20, 1895, Papers of Richard Olney, Library of Congress, Washington, D. C.

⁶ *New York World*, Dec. 21, 1895, 1:8; *ibid.*, 4:1. Olney learned about the Chamber's unhappiness in a letter from Abram S. Hewitt to Olney, Jan. 8, 1896, Olney Papers.

⁷ *New York World*, Dec. 20, 1895, 1:8, 2:1; also quoted in Perkins, *Monroe Doctrine, 1867-1907*, pp. 196-197.

several financial leaders, among them J. Pierpont Morgan, and then reported to Whitelaw Reid that the belief prevailed among these titans that "we were on the eve of a financial cataclysm the like of which had never been witnessed."⁸ In an informal poll taken at the Union League Club "practically everybody" expressed disgust "over the whole business."⁹

Several leading Boston financiers agreed with these views. Edward Atkinson, president of the Boston Manufacturers Mutual Life Insurance Company and one of the popular economists of the day, shouted to an inquiring reporter, "This is ridiculous, ridiculous, ridiculous!" At each word his voice rose until he almost shrieked.¹⁰ In less passionate tones, the New England Free Trade League and key members of the Boston Stock Exchange adopted resolutions and signed petitions which attacked the Chief Executive's policy. Colonel Henry L. Higginson, of Lee, Higginson and Company, bluntly declared, "President Cleveland has made the biggest blunder of his life."¹¹

Though these were influential voices, they were soon counterbalanced by the views of business leaders in New York, Boston, and the Midwest. Two opinion polls, one published by the *New York World* and one conducted by *Bradstreet's*, outlined this fact.¹² After interviewing 23 boards of trade, chambers of commerce, and commercial exchanges, the *World* concluded that all but one group approved the message. The single organization which did not, the Richmond, Virginia, Chamber of Commerce, had not polled its members and thus refused to comment. *Bradstreet's* survey of leading merchants and manufacturers in 20 cities revealed an identical trend of opinion.

Even on Wall Street imperfect unanimity existed. John A. Stewart of the United States Trust Company believed that "one must uphold the President," while Gustav A. Jahn, a leading merchant on the street, declared that "The President did just what was right."¹³ William C. Whitney, a power in New York financial cir-

⁸ Royal Cortissoz, *The Life of Whitelaw Reid* (New York, 1921), vol. II, pp. 201-202.

⁹ *Wall Street Journal*, Dec. 19, 1895, 1:4; also noted in a letter from Charles Stewart Smith to Andrew Carnegie, Dec. 24, 1895, Papers of Andrew Carnegie, Library of Congress, Washington, D. C.

¹⁰ *Boston Morning Journal*, Dec. 18, 1895, 4:6.

¹¹ *Wall Street Journal*, Dec. 20, 1895, 1:2; *New York World*, Dec. 21, 1895, 5:1.

¹² *New York World*, Dec. 20, 1895, 2:3-5; *Bradstreet's*, Dec. 21, 1895, p. 813. The *World* denounced Cleveland's course of action on its editorial pages and displayed its bias by headlining this survey: "TRADE DEPRESSED BY MESSAGE," though not a single reply to the opinion poll could be construed in this manner.

¹³ *New York World*, Dec. 20, 1895, 1:8, 2:1. Quite naturally, large exporters, as Charles R. Flint of Flint, Eddy & Company, liked the message. See Flint's opinion of how favorably all the American Republics would receive the American pronouncement in *New York World*, Dec. 18, 1895, 2:3.

cles as well as in the Democratic Party, rose from a sick bed to praise the message as "strong and decided, as it should be."¹⁴ Chauncey Depew believed "The President has correctly interpreted the Monroe doctrine."¹⁵ Oscar Straus wrote a personal letter to Grover Cleveland which declared that "You have placed a clear and emphatic seal upon our national policy which can not fail to safeguard the permanence of our democratic institutions." In a letter written to a friend in late December, Straus approved the message as one which "gives notice that we are to be reckoned with [in] all affairs regarding this Continent."¹⁶

Andrew Carnegie's reaction was especially vigorous. The crisis provided him with an opportunity to publicize two of his pet projects: the disposal by Great Britain of her colonial empire in the Western Hemisphere, and international arbitration. Carnegie warned his good friend the Duke of Devonshire that "the United States will acquire this Continent, because he is his mother's son." He hoped that Great Britain would acquiesce in this inevitable change of international power and not tarry to argue points of possible dispute, but refer them to international tribunals.¹⁷

Significantly, the absence of immediate panic on the New York Stock Exchange indicated a lack of concern in financial circles over Cleveland's policy. When words of the message reached the floor of the Exchange, the bear contingent cried "War! War!" and selling began. In a very few minutes, however, market prices began to climb. The bears rushed to cover their shares. One disgusted bear trader complained, "Ugh! Is this the whole bloody war?"¹⁸ On December 18, the day after the message, the market actually strengthened. Industrials led the way upward while investors neglected the bond market.¹⁹ This was not the way a frightened financial community usually acted.

The crash finally occurred on the morning of December 20. Losses ran upward to \$170,000,000. Five firms failed, though all of them were small. A new shipload of gold totaling \$3,400,000

¹⁴ *New York World*, Dec. 18, 1895, 1:7.

¹⁵ *Ibid.*, 2:3.

¹⁶ Straus to Cleveland, undated but probably Dec. 18, 1895, Papers of Oscar Straus, Library of Congress, Washington, D. C. Straus to Henry Dwight, Dec. 24, 1895, Straus Papers.

¹⁷ Carnegie to the Duke of Devonshire, Dec. 26, 1895, Carnegie Papers; see also Carnegie to *London Times*, Dec. 22, 1895, Carnegie Papers; Carnegie to *New York Sun*, Dec. 1895, Carnegie Papers. Carnegie saw the crisis as an opportunity to obtain a large order for steel from the United States Navy. See Carnegie to John G. A. Leishman, president of the Carnegie Steel Company [no specific date, but after the Cleveland message], Dec., 1895, Carnegie Papers.

¹⁸ *New York World*, Dec. 18, 1895, 2:2.

¹⁹ *Ibid.*, 13:1; *ibid.*, Dec. 19, 1895, 11:1; *Wall Street Journal*, Dec. 19, 1895, 2:1.

left the depleted Treasury stocks for Europe. Loan rates shot up to 80 per cent within several hours.²⁰

But the panic lasted less than one day. By the afternoon of December 20, "good buying" featured the trading.²¹ Other than its short duration, two other factors of the crash deserve notice. First, British investors, not American, touched off the downward surge of stock prices. Even the loss incurred from British selling was, in the opinion of the *New York World*, "really loss on paper." This journal bragged that the events of the twentieth demonstrated the "ability of American finance to take care of itself." Europe wanted to dump American securities, but United States investors had absorbed them "even if it pinched us for money temporarily."²² This unexpected power on the part of American financial interests not only stopped the crash, but symbolized a deeper, more important event that was occurring: the New York financial community, backed by a vast, maturing interior, had reached a point where it could play an important independent role in international finance.

Secondly, factors other than the diplomatic crisis undermined the stock market. In his Annual Message of December 2, 1895, President Cleveland warned that the gold reserve in the Treasury had dwindled to a dangerous point.²³ On December 16, the day before the Venezuelan storm broke, Cleveland met with financial leaders to see whether a bond issue could be negotiated to save the Treasury.²⁴ When on December 20 the President asked Congress for emergency measures to deal with this gold crisis, he thus dealt with a long-term problem which had been accelerated by the Venezuelan crisis. The boundary dispute itself was not the only cause of the panic. Business magazines realized this. R. G. Dun & Company's *Weekly Review of Trade* reported that the President's message had little direct effect on the market since "business was remarkably dull" anyway. Other prominent financial periodicals endorsed this view.²⁵ Observers in London linked the upcoming

²⁰ *New York World*, Dec. 21, 1895, 1:7-8.

²¹ *Wall Street Journal*, Dec. 20, 1895, 2:1; *New York Journal of Commerce*, Dec. 23, 1895, 1:3.

²² *New York World*, Dec. 21, 1895, 1:7-8; *New York Journal of Commerce*, Dec. 19, 1895, 5:1. In spite of pessimistic predictions from both sides of the Atlantic that the recovery was only temporary, the panic had in fact ended. By December 24 the gold exports had dwindled, buying of gilt-edged securities had increased, and general optimism prevailed. See *Wall Street Journal*, Dec. 23, 1895, 2:1; *New York Journal of Commerce*, Dec. 24, 1895, 1:6; *Commercial and Financial Chronicle*, Dec. 28, 1895, p. 1132; *Banker's Magazine*, vol. LII (Jan., 1896), p. 106.

²³ *Messages and Papers of the Presidents*, vol. IX, p. 645.

²⁴ *New York World*, Dec. 17, 1895, 1:1; *Banker's Magazine*, vol. LII (Jan., 1896), p. 107.

²⁵ Quoted in *Chicago Times-Herald*, Dec. 21, 1895, 14:3. See also *Banker's Magazine*, vol. LII (Jan., 1896), p. 107; *New York Journal of Commerce*, Dec. 20, 1895, 5:1. Secretary of State Olney scolded a New York banker who had remarked to John W. Foster (former Secretary of State under Benjamin Harrison) that the Venezuelan message had

1896 presidential election and the critical condition of American currency with the Venezuelan crisis to explain why "British investors do not take a sanguine outlook in America."²⁶

In contrast to the few though influential New York voices which supported Cleveland, many members of the Boston business community approved the message. Alden Speare, president of the Boston Board of Trade and ex-president of the Boston Chamber of Commerce, declared that "This nation cannot afford to take any stand except that taken by President Cleveland." A survey of the Board of Trade itself concluded that some members thought the Monroe Doctrine had become "too elastic," but "otherwise the message is universally approved."²⁷ Charles E. Adams, president of the Massachusetts State Board of Trade, significantly proclaimed, "I believe that this nation has reached a period in its history when it is of sufficient importance that no national wrong or injustice should be disregarded, and we should demand, in justice to our mercantile interests, that respect to which we are entitled." Adams interpreted Cleveland's message as one which sought to provide protection for expanding American mercantile and financial interests.²⁸

The rush of Boston bankers to Cleveland's support provided perhaps the most surprising occurrence in the Eastern scene. Expressing almost complete disagreement from the majority of their counterparts in New York City, some of these Bostonians expressed views more common to their ardent Massachusetts expansionist, Henry Cabot Lodge, or to Western Silverite jingoists. H. J. Jaquith, president of the Traders' National Bank, said, "The Monroe doctrine involves a principle which is well worth going to war to maintain." He even believed such a war would be a "blessing," since it would "prove once for all that the country is united." N. P. Hallowell, president of the National Bank of Commerce, told the press that "it may seem somewhat unfortunate that we should be compelled to safeguard" Latin America against foreign encroachment, but "it is well known that England is a land pirate wherever she can be so with impunity." Eben Bacon, president of the Washington National Bank, called Cleveland's message "a good, straight-forward statement, and

undermined the New York market. Olney concluded, "while the Venezuelan message may have accelerated the conditions of things that has [*sic*] prevailed on Wall Street for the last two or three days, it was bound to come and was growing more and more imminent every day." Olney to John W. Foster, Dec. 23, 1895, Olney Papers.

²⁶ *London Economist* quoted in *New York Journal of Commerce*, Dec. 23, 1895, 1:3.

²⁷ *Boston Morning Journal*, Dec. 18, 1895, 4:6; *Bradstreet's*, Dec. 21, 1895, p. 813.

²⁸ *Boston Morning Journal*, Dec. 18, 1895, 5:3.

a vigorous upholding of a doctrine dear to the hearts of all Americans."²⁹

Business groups in other Eastern cities endorsed Cleveland's stand. A poll among "commercial and industrial concerns in Pittsburgh" revealed that these companies "favorably regarded" the message. In Buffalo, New York, "the President's message was received with general favor and indorsement." The Baltimore business community welcomed Cleveland's statement "with general approval." The Trenton Board of Trade accepted the message by noting that "It will be beneficial to our future trade relations with adjacent nations." In Fall River, Massachusetts, the Board of Trade deprecated the idea of a possible war (as did most of the other business groups in the nation), but quickly added, "At the same time the United States must maintain that which is right."³⁰

Midwestern business leaders gave the message as vigorous an endorsement as did these Eastern groups. Commercial bodies speaking for the business communities in Kansas City, Missouri, St. Paul, Milwaukee, and Indianapolis expressed wholehearted approval for Cleveland's policy.³¹ Most interesting was the Chicago scene where decided differences of opinion occurred between bankers and the industrial-merchant group. John J. Mitchell, president of the Illinois Trust and Savings Bank, W. T. Fenton, president of the National Bank of the Republic, and J. J. P. Odell, president of the Union National Bank, attacked the President's stand.³² Men of the industrial-merchant group, however, such as Marshall Field and P. D. Armour, gave equally strong approvals. Armour even added, "In fact there are a great many of us republicans [*sic*] who like Mr. Cleveland."³³ When the stock market declined on December 20, none of these Chicago business groups, not even the bankers, laid the blame at Cleveland's door, but instead traced the panic to speculative raids and watered stocks.³⁴

Cincinnati and Cleveland led Midwestern support for the message. The Chambers of Commerce of both cities unanimously commended the President, while a poll established that 28 out of 30 "prominent industrial and mercantile concerns" interviewed in Cincinnati approved American policy.³⁵ The *Cincinnati Commercial*

²⁹ *Ibid.*, Dec. 19, 1895, 4:3; F. W. Higginson to Olney, Dec. 21, 1895, Olney Papers. Moses Williams, president of the Third National Bank, deprecated the war talk as a "bad thing for business," but believed that the stock market would show no ill effects. *Ibid.*

³⁰ *Bradstreet's*, Dec. 21, 1895, p. 813.

³¹ *Ibid.*; *New York World*, Dec. 20, 1895, 2:3-5.

³² *New York Evening Post*, Dec. 23, 1895, 3:4.

³³ *Chicago Times-Herald*, Dec. 19, 1895, 5:3, 4.

³⁴ *Ibid.*, Dec. 21, 1895, 3:3, 4.

³⁵ *New Orleans Times-Democrat*, Dec. 20, 1895, 2:5; *Milwaukee Sentinel*, Dec. 18, 1895, 9:4.

Gazette, a Republican high tariff and gold newspaper, believed that "the message . . . will become one of the great historic papers of the nation." It promised "to call him 'G. Cleveland' no more. He shall have, hereafter, his full name spelled out with all its effulgent beauty and roundness — Grover Cleveland."³⁶ Cincinnati investors reflected this opinion. When the stock market broke in New York on December 20, they bought the declining stocks with a rush "which possibly exceeded anything of the kind in the history of the city."³⁷ This restabilization of the stock market by New York, Cincinnati, and other American investors substantiates an interpretation which views the 1893-1897 depression as resulting from too few markets for industrial goods rather than a scarcity of money.

Southern and Western commercial centers echoed Midwestern opinion. Memphis and Atlanta business leaders expressed worried opinions about the effect of the crisis on the price of cotton, but they nevertheless warmly approved Cleveland's action.³⁸ The *Memphis Commercial Appeal*, a gold and antijingo newspaper, backed the President "though he may have been a little hasty in declaring it so sharply." This journal had asked for a vigorous policy declaration on the Venezuelan dispute as early as October 13.³⁹ The president of the San Francisco Board of Trade believed that the message met with "the unanimous and cordial indorsement of the business men of this city." The Helena, Montana, Board of Trade unanimously backed the President's stand.⁴⁰ It was to be expected that many Western organs under the control of Populists and silver forces would applaud any policy which could conceivably lead to a financial or diplomatic crisis which, in turn, would necessitate an enlargement of the amount of paper and silver money in circulation.⁴¹

Trade journals divided on the issue. In the words of *Literary Digest* some of these periodicals contributed "no small amount of condemnation of the Administration."⁴² Businesses whose stocks fluctuated with every smile and frown of British investors excoriated Cleveland's policy. The *Railway Gazette*, *American Wool and Cot-*

³⁶ *Cincinnati Commercial Gazette*, Dec. 18, 1895, 4:1; *Ibid.*, Dec. 19, 1895, 4:2.

³⁷ *Ibid.*, Dec. 21, 1895, 1:1-2.

³⁸ *Bradstreet's*, Dec. 21, 1895, p. 813. Two of the leading Southern trade journals, *Dixie* (Atlanta, Georgia) and the *Chattanooga Tradesman*, had no comments at all. This was odd since both journals displayed much interest in the Latin American market for American manufactured and cotton products.

³⁹ *Memphis Commercial Appeal*, Dec. 18, 1895, 4:1-2.

⁴⁰ *New York World*, Dec. 20, 1895, 2:3-5.

⁴¹ Many Eastern financial leaders objected to the message not because it threatened war, but because the panic pointed up and further tightened the stringent money market. See the *Commercial and Financial Chronicle*, Dec. 21, 1895, p. 1080; *New York Journal of Commerce*, Dec. 23, 1895, 11:6.

⁴² *Literary Digest*, Jan. 4, 1896, p. 278.

ton Reporter, and Engineering and Mining Journal feared that the message ended any hope of immediate recovery in their particular trades.⁴³

But many business journals, especially those published in industrial and in iron and steel centers, supported the President. The *American Manufacturer*, published in Pittsburgh, was usually not a pro-Cleveland paper since it advocated high tariffs. But in discussing the Venezuelan situation this journal reasoned that England refused to submit her case to arbitration because "Her commercial supremacy is being threatened on all sides. The markets of the world are being wrested from her," and so she "seeks to extend her commercial influence in South America." This periodical proceeded to give an interesting definition of President Monroe's dictum: "If the Monroe Doctrine means anything, the United States cannot disregard these encroachments on American soil." The United States had to stand firm against this commercial infiltration even if it led to "blood and iron."⁴⁴

The *Manufacturers' Record* reiterated this belief when it wrote that if "various European powers" continued to gain power in Latin America, "our only real rivals in peace, as well as enemies in war" would be stationed "at our very door." The *Farm Implement News*, a bimetallist journal, cared little if the dispute led to war, for such a conflict would "result in a Pan-American alliance and in the establishment of closer relations, social, political and commercial" between the American republics. The *Bulletin of the American Iron and Steel Association* warmly endorsed Cleveland's definition of the Monroe Doctrine, though it disliked the "lines of empty bravado" at the end of the message which intimated a threat of war if England did not comply. The *Northeastern Lumberman and Manufacturers' Gazette* warned that "This country cannot afford to allow the weaker governments of South America to be overrun as Africa has been." A survey of industrial journals reveals widespread support for the December 17 pronouncement.⁴⁵

This analysis suggests certain conclusions. First, a split occurred between New York-Chicago banking circles and the remainder of the business community. Not even leading Boston bankers agreed with their fellow financiers. Industrialists and merchants almost

⁴³ *Railway Gazette*, Dec. 27, 1895, p. 858; *Public Opinion*, Dec. 26, 1895, p. 843; *Literary Digest*, Jan. 4, 1896, p. 278.

⁴⁴ *American Manufacturer and Iron World Weekly*, Dec. 28, 1895, p. 919.

⁴⁵ *Public Opinion*, Dec. 26, 1895, p. 843; *Farm Implement News*, Dec. 26, 1895, p. 18; *Bulletin of the American Iron and Steel Association*, Jan. 10, 1896, 12:1; *ibid.*, Jan. 1, 1896, 1:1; *Northeastern Lumberman and Manufacturers' Gazette*, Dec. 28, 1895, 3:3. See also *Oil, Paint and Drug Reporter*, Dec. 23, 1895, 24:2.

unanimously backed the President.⁴⁶ Secondly, several monetary weaknesses in the American economy contributed as much to the panic of December 20 as did the Venezuelan crisis. Most important, British security holders triggered the decline, while American investors, even in the supposedly money-poor Midwest, displayed a large amount of financial power in stemming the tide and stabilizing stock prices.

This brief study suggests the need for a more comprehensive approach to the American business community's views on foreign policies during the decade before Spain and the United States went to war. Such an approach should not be concerned with one area (as New York and Boston), but with the opinions of most of the important financial and industrial centers in the United States. It is noteworthy that leaders and journals of the industrial-merchant group formed the vanguard of the forces which defended Cleveland's Venezuelan policy. This becomes significant when studied in the context of a depression which produced a glut of industrial goods. Perhaps a monograph which grappled with these two factors (i.e., the division between New York financial journals and bankers and the remainder of the American business community, and, secondly, the spirited foreign policy advocated by American industrialists and merchants) would differ from prevailing studies which imply that most business leaders in the pre-1898 period opposed an active and expansionistic foreign policy. Even if fresh narratives did not differ, they would broaden, further document, and make more meaningful the present accounts.

⁴⁶ Every businessman who is quoted by Perkins and Tansill as opposed to Cleveland's policy is a banker from New York. Perkins, *Monroe Doctrine, 1867-1907*, pp. 196-197; Tansill, *Foreign Policy of Thomas F. Bayard*, p. 727.

These results are interesting when coupled with George Auxier's conclusion that Midwestern newspapers "contributed" to "bringing about" the Spanish-American War. "Middle Western Newspapers and the Spanish-American War, 1895-1898," *Mississippi Valley Historical Review*, vol. XXVI (March, 1940), pp. 523-534.





Industrial Relations Policies Of American Management 1900-1933

¶ The first third of the twentieth century completely transformed the practice of industrial relations in American business. Three principal motivating forces may be identified. These not only fluctuated in time, place, and influence, but have received unequal and less than impartial historical attention.

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The past 60 years have witnessed striking alterations in the practices of industrial relations. Many factors are responsible for the significant changes that have taken place in managerial policy and attitude toward employees. Unionism and legislation are well known as contributing forces. There have been other factors which have had an indirect effect, such as improvement in education of the worker and the tightening of the labor market which followed the curtailment of immigration in 1917. Changes also took place

when management, reacting to an internally generated need for greater efficiency, sought to make the worker a more effective participant in the production process.

Students of labor relations have made extensive studies of some of the forces which caused the great change in industrial relations since 1900. The roles of both unions and government in the transformation of our industrial relations system have been particularly well studied. However, not until recently has effort been devoted to explaining the evolution of labor policies by considering all the causal factors involved.¹ Only recently has it become possible, by synthesizing specialized studies, to view over-all change in historical perspective.

Such recent broad studies, however, seem to be lacking in three respects. First, the labor policies themselves have not been explained in sufficient detail. As a result, the importance of certain policy changes has not been appreciated. Secondly, there has been a lack of attention to developments which occurred before the New Deal. The dramatic events in labor relations which followed 1933 seem to have obscured important developments from 1900 to 1933. Thirdly, there has been little consideration of the relative importance of the causal factors involved. For example, what has been the importance of unionism compared with legislation or with the efforts of management to improve efficiency?

This study is an effort to fill some of these voids. The third of a century under consideration will be subdivided into three periods: the pre-1917 years; the years from 1917 to 1919; and those from 1920 to 1933. This chronological division is also a natural one because each period was characterized by changes in industrial relations policies peculiar to itself. After describing these in turn, an attempt will be made to identify and evaluate the relative importance of the major forces that produced the policy changes.

1900-1916

During this period the major innovations in labor relations policies included: the development of Scientific Management; the wide-

¹ Professor Bendix has made a detailed study of the evolution of American managerial ideology since the 1890's. See Reinhard Bendix, *Work and Authority in Industry* (New York, 1956), chap. 5. Professors Brown and Myers have concentrated on the changes in managerial philosophy since the 1920's. See Douglass V. Brown and Charles A. Myers, "The Changing Industrial Relations Philosophy of American Management," in *Proceedings of the Ninth Annual Meeting of Industrial Relations Research Association* (Dec., 1956), pp. 84-99. Professor Witte has traced the major causes of management changes in policy and practice since the beginning of modern labor relations policy around 1890. See Edwin E. Witte, *The Evolution of Managerial Ideas in Industrial Relations*, New York State School of Industrial and Labor Relations (Cornell University, Bulletin No. 27, Nov., 1954).

spread institution of employer welfare work; the establishment of "fringe" benefits such as old-age pensions and profit sharing; and the increased attention to employee safety on the job. In discussing these developments and the probable reasons for their occurrence, special attention must be given to the assertion that unions were primarily responsible for the changes that took place during this period.

Consider the setting at the turn of the century. The United States was in the midst of a record-breaking industrial expansion. While the technology of production had developed rapidly, the science of management was in its infancy. Management lacked systematization. Purchasing and storage were decentralized, resulting in frequent overstocking or understocking of materials. Accounting systems gave little more than a statement of profit and loss at the end of each year. There was a noticeable absence of written instructions to executives and workmen.² Internal management was reminiscent of that of an earlier era.³ An inventory of management around 1900 would show that there was much more concern for markets and prices than for plant layout, departmental coordination, materials handling, inventory control, or efforts to raise employee efficiency.

The first major response to these conditions was the work of Frederick W. Taylor. His Scientific Management was adopted in answer to the need for increased efficiency. Taylor attempted to reduce industrial relations to a science — "to simplify and clearly define jobs, to improve the physical conditions of work, to set up operations in such a way as to minimize waste time and lost motions, and to provide an incentive for increased production through methods of pay based on worker productivity."⁴ Scientific Management specifically stimulated interest in job training, more equitable methods of determining pay, standardization of working conditions, ease of job performance, industrial safety, and improvement in

² An eyewitness paints a picture of this period:

An enormous number of different-sized parts were used in the machines put out by the concern, and as is the practice in the average old-fashioned shops these parts, coming from foundry or machine-shop were dumped at any vacant space in the rambling collection of buildings, sheds, and passage-ways. A man never knew exactly where to find any of the parts of the machine he was assembling. Moreover, he never was certain of finding at his machine the tools he had left the night before. It was his usual habit to spend the first half-hour or more in the morning getting things together and often rowing with his fellows over tools which he believed they had taken from his bench. This is so characteristic a practice that it is no unusual thing for workmen to hide their tools on leaving the shop at night. (Ida M. Tarbell, *New Ideals in Business* [New York, 1917], pp. 16, 17.)

³ Don D. Lescobier and Elizabeth Brandeis, *History of Labor in the United States, 1896-1933, Working Conditions* (New York, 1935), p. 303. This is one of four volumes on labor history written under the guidance of John R. Commons.

⁴ Witte, *Managerial Ideas*, p. 6.

sanitation and lighting. For the first time, employers as a group recognized that job conditions could help determine how well the worker would function. From its birth in the very early years of the century, Scientific Management was increasingly accepted and by the First World War was in general use.

Scientific Management not only helped revolutionize working conditions, but also altered the managerial philosophy of labor relations.⁵ At the time it was introduced, popular economic thought was still under the influence of the nineteenth-century philosophy of individualism. The successful businessman was commonly viewed as a person who had started with nothing and made his own success in a highly competitive world. The prevailing concept was that similar success was possible for any able and diligent individual. Ordinary workers were considered to be those who had not succeeded and who should therefore accept the supremacy of the employer. In such a relationship the employer's authority was unquestioned and his decisions were considered to be correct.

Scientific Management modified these prevailing attitudes toward the competitive struggle. No longer was the employer's authority considered absolute by virtue of his success and position. Management must now place the right man in the right job, determining the natural ability of each worker and the specific job requirements involved. All this was to be done "scientifically," in accordance with standards that existed quite apart from the employer's authority. No longer were his decisions regarding work and labor correct just because he was the employer. His new obligation was to measure up to Taylor's standards of management.

Concepts of the worker's role were correspondingly modified. He now had an alternative to the dim goal of some day becoming an owner-manager. Now he could hope to achieve "success" by performing his daily tasks efficiently, in accordance with his "scientifically-determined" abilities. Business success or failure could no longer be completely equated with the philosophy that the able progressed to managerial status and wielded unquestioned authority over those who remained employees.

A second major development which began to be noticeable around 1900 was the "welfare work" of management among employees.⁶ This included such things as the installation of plant

⁵ Bendix, *Work and Authority*, p. 274 f.

⁶ Welfare work has been described as "anything for the comfort and improvement, intellectual or social, of the employees, over and above wages paid, which is not a necessity of the industry, nor required by law." This definition would exclude employer-sponsored insurance, pension or profit-sharing plans. (United States Bureau of Labor Statistics Bulletin 250 [Feb., 1919], p. 8.)

lunchrooms where food was served at cost or free; improvement in the exterior surroundings of the plant; the provision for in-plant bathing facilities for employees; employee rest rooms and smoking rooms; recreational facilities for employees and their families; and libraries, club houses, and athletic fields.⁷ Many "welfare plants" had group insurance plans, in most of which both employees and management participated. Such plans also provided insurance against sickness, accident, and death.

Welfare Management began modestly but spread rapidly. Less than $\frac{1}{4}$ of 1 per cent of the firms in New York State in 1904 had welfare features. By 1908, around 10 per cent of all wage earners in the country had been embraced by the movement.⁸ Welfare plans continued to expand throughout the period before World War I. Professor Lescoghier says that "with all its error and bungling welfare management contained some elements of liberal labor policy and those features which responded to a real need were later re-incarnated into another form of managerial policy, the modern policy of functionalized labor management covering the whole range of employer-employee relations."⁹

Management was not slow to recognize that employee attitude was an important factor in the production process.¹⁰ The employer realized that the loyalty and job interest of his workers were needed; he also recognized that their sense of status and identification had diminished with the rise of large-scale production and its accompanying loss of personal contact between employer and employee. The primary reason for the institution of welfare work was to fill the void created by the loss of personal contact.

In part, welfare work reflected a simple and unselfish desire by management to be humane. In this period employers often made references to a belief that their success met with God's approval. This idea demanded a degree of adherence to religious ideals about obligations to less fortunate fellow beings. There were also undertones of a pragmatic leader-follower psychology. The employer represented the successful leader who, since he had bested his employees in the struggle for position, had an obligation to them. Very often this attitude was expressed in terms of the parent-child relationship. The parent's authority is supreme, but he must care for the needs of the child. It was in these terms that many employers viewed industrial relations in those days.

⁷ Lescoghier and Brandeis, *History of Labor*, p. 318.

⁸ William H. Tolman, *Social Engineering* (New York, 1909), p. 355.

⁹ Lescoghier and Brandeis, *History of Labor*, p. 321.

¹⁰ *Ibid.*, p. 317.

Other reasons have been cited for the welfare movement. These include, an effort by some firms to sugar-coat Scientific Management; the desire to combat unionism; the fact that it was good advertising; and the belief that it was "a way of mitigating an unsavory reputation caused by shady business practices, long hours, or low wages."¹¹

It may be surprising that unions are credited with being only one of a number of secondary influences that motivated welfare work. The threat of unionism, however, was relatively limited at this time. From 1904 to 1910 total union membership grew by less than 4 per cent.¹² From 1900 to 1917 the number of union members never exceeded 10 per cent of the workers who could be considered eligible for membership. Furthermore, the existing membership was highly concentrated in mining, construction, and transportation, with only a smattering of members in the factories.¹³ It is also significant that welfare work was instituted in many firms where the threat of unionization was remote or where unions were already established.¹⁴

A third early industrial relations development, co-existent with Scientific Management and welfare work, was the introduction of what are today called fringe benefits. Employer-sponsored old-age pension plans were one of these. Before 1900, railroad companies, banks, insurance companies, and some utility companies pioneered in the establishment of pension plans for their employees.¹⁵ Employers in manufacturing industries became interested between 1901 and 1905, and by 1910 had developed a significant number of these plans. The question of pensions became acute when firms found that they had numerous employees who had been with them for 30 or 40 years and who were no longer able to perform their

¹¹ *Ibid.*, p. 316.

¹² Computed from Leo Wolman, *Ebb and Flow in Trade Unionism*, National Bureau of Economic Research (New York, 1936), p. 192.

¹³ The major reason behind the failure of unionism to penetrate manufacturing, of course, was the great wave of immigration which started after the Civil War and continued until World War I. The changing composition of this immigration was also significant. Prior to 1880, nearly two thirds of the European immigrants came from western Europe. Around 1880, immigration from eastern and southern Europe increased rapidly, accounting for a majority of new arrivals between 1895 and 1917. The eastern and southern European immigrants found their job opportunities in the factory, not on the farm as had the western Europeans. They were unskilled, lacking in knowledge of English, often illiterate, and anxious to obtain and hold a job. Should a union organizer seek to crystallize the grievances of these workers into action by the formation of a union, the employer could quickly replace those interested in unionism with still newer immigrants who were eager for their jobs. It is probable that such practices evoked little public concern. See *Report of the United States Immigration Commission*, 1901, vol. XV, p. xix. Hearings of House Committee on Immigration, 68th Cong., 1st Sess., Dec., 1923, and Jan., 1924. *Report of the United States Immigration Commission*, vol. IX, pp. xxiii, xxix.

¹⁴ Lescobier and Brandeis, *History of Labor*, p. 316.

¹⁵ Murray W. Latimer, *Industrial Pension Systems in the United States and Canada*, Industrial Relations Counselors (New York, 1932), pp. 26-28, 30, 35, 474, 483.

work satisfactorily. The pensions were usually paid out of operating income, a practice which later proved to be a serious weakness.

Another early fringe benefit was employee profit sharing. Some plans were started in the nineteenth century; more were instituted between 1900 and 1916. A 1916 study found 60 profit-sharing plans in operation more than two thirds of which were less than 10 years old.¹⁶ These were true profit-sharing plans, the profits being distributed to practically all wage earners. At least 15 additional plans were launched in 1915-1916. While some further growth had occurred by 1920, there was little increase in number of plans thereafter.

Profit sharing was motivated partially by simple moral conviction that if a business was particularly lucrative, workers as well as owners should benefit. Many employers also hoped to encourage thrift among their employees. However, the most general purpose behind profit sharing was a hope "that the loyalty and cooperation of the employees would be increased, that labor turnover would be reduced, and industrial disputes would be avoided."¹⁷

The fourth major development in early labor relations was the industrial safety movement, which started about 1907. The high rate of industrial accidents from 1903 to 1907, due to the "unprecedented degree of business activity and the large proportion of inexperienced immigrant labor," stimulated both private and governmental investigations of job safety.¹⁸ Many corporations, conscious of the human and monetary costs of accidents, launched vigorous industrial safety campaigns.¹⁹ However, the major force behind the movement was an aroused public opinion, which led to legislation designed to prevent accidents or to provide care for those injured on the job. A number of states passed laws requiring machinery safeguards and factory inspection.²⁰ After 1910, many states enacted workmen's compensation laws, which passed on to employers a large portion of the cost of accidents. Such laws gave further impetus to the growth of industrial safety campaigns.

Each of the four major changes in industrial relations policies of the 1900-1916 period, it will be noted, was closely related to the rise of large-scale factory production experienced after 1880 in American industry. By the time the United States entered World

¹⁶ Boris Emmett, *Profit Sharing in the United States*, U. S. Bureau of Labor Statistics, Bulletin 208 (Washington, D. C., 1917).

¹⁷ Lescobier and Brandeis, *History of Labor*, p. 376.

¹⁸ Lucian W. Chaney and Hugh S. Hanna, *The Safety Movement in the Iron and Steel Industry, 1907-1917*, Bulletin No. 234, Bureau of Labor Statistics (Washington, D. C., June, 1918), p. 13.

¹⁹ Lescobier and Brandeis, *History of Labor*, p. 367.

²⁰ *Ibid.*, p. 366.

War I, however, forces other than growth had begun to exert a dominant influence on the direction of industrial relations development.

1917-1919

Industrial relations policies in this period were dominated by the necessities of war. The flood of immigration, which had made labor cheap and abundant since the Civil War, was abruptly terminated. While the labor supply decreased, demand was increased by the pressures of military need and accelerated industrial production. Job availability stimulated a high rate of job turnover. The need for uninterrupted production led to the creation of the National War Labor Board to facilitate settlement of industrial disputes. Because of the tight labor market and government encouragement of worker representation, unions made important membership gains. Employers countered with an extension of welfare activities and the development of better methods of labor management.

One major change in industrial relations which occurred at this time was the development of employee representation plans. An employee representation plan has been described as a "form of industrial organization under which the employees of an individual establishment, through representatives by and from among themselves, share collectively in the adjustment of employment conditions in that establishment."²¹ Under employee representation, employees were supposed to have some voice (if only advisory) concerning the working conditions in their plant. Employee representation was distinguished from independent unionism by the facts that employees could not strike and could only bargain about such matters as the employer was willing to discuss.

Practically all of the representation plans developed during the war were established by order of the War Labor Board. As a general principle, the Board favored settling labor disputes by granting employees limited collective bargaining rights where none had previously existed. Most employers were not receptive to employee representation. "Many regarded it as a revolutionary step—to some it appeared to be an opening wedge that would lead to the domination of their plants by organized labor."²² However, not all employers were hostile. A few plans had been developed volun-

²¹ *Work Councils in the United States*, National Industrial Conference Board, Research Report No. 21 (New York: Oct., 1919), p. 1.

²² *Collective Bargaining Through Employee Representation*, National Industrial Conference Board (New York, 1933), pp. 8, 9.

tarily before the war and some were voluntarily developed during the war period.²³

A second important wartime development was the further extension of welfare work. Management systematized and extended welfare activities of the prewar period. Many new welfare activities were also instituted. Some firms built company owned houses and dormitories for their employees. Many employers, encouraged by the popularization of medical examinations and preventive medicine (a result of military practice and the new workmen's compensation laws), employed plant doctors. Military recreational activities were copied by private industry as another new type of welfare activity.²⁴

A third change in managerial labor relations policies at this time was the development of personnel management as a distinct professional specialty. The focal point of attack was an increased attention to the discovery and correction of worker grievances, as well as to increasing the worker's satisfaction on the job. Personnel departments were created in many companies to take over the task of handling employee relations.

Personnel departments performed new labor relations functions and systematized existing practice. Important responsibilities of specialized personnel management included introduction of "scientific" methods of employee selection; training of inexperienced labor brought into the factory from rural areas; conducting time studies; job standardization; accident prevention; supervising work conditions of women and children (which required added attention as a result of state legislation); and the centralization of hiring and firing in the hands of one department. Assumption of these responsibilities at the staff level of management eliminated much abuse by the foremen who formerly had performed such functions.

Considered in its entirety, personnel management was much more than a mere extension of welfare work. It was a landmark in evolution that explicitly recognized the complexity of industrial relations. It represented an attempt to approach labor problems with a scientific attitude and to treat labor relations as an integral part of management, with the personnel manager acting as adviser and coordinator and with every person in the organization sharing in the responsibility for proper handling of labor questions. The realization had matured that there was no such thing as The Labor

²³ Earl J. Miller, *Workmen's Representation in Industrial Government* (University of Illinois, 1924), chap. I.

²⁴ *Ibid.*, pp. 322, 323.

Problem, but rather that each day and each situation created new and distinctive challenges.

The final significant development during the war period was management's increased exposure to the problems of dealing with organized labor. Union membership surged from 3,061,400 in 1917 to 5,047,800 by 1919.²⁵ For the first time since the success of the Knights of Labor in the 1880's, unionism was conceived to be a general threat to factory management. The stress of transition was no doubt accentuated by the facts that in some cases union recognition was forced by decisions of the War Labor Board and that many companies had their first experience with unionism under the unusual conditions of war.

Behind each of these various changes in methods of dealing with employees lay the omnipotent influence of war. Professor Lescoghier states that "no other finding concerning industrial relations so profoundly affected employers' personnel policies from 1915 to 1920 as did the facts published concerning labor turnover."²⁶ To attract and hold labor at a time when job opportunities were plentiful was the major problem of the period.

1920-1933

Personnel management suffered a temporary setback in immediate postwar years. During 1920 the war-induced prosperity collapsed. Labor became more abundant, the turnover rate dropped, and unions declined in membership.²⁷ Since the recession of 1920-1921 necessitated drastic cuts in operating costs, many companies eliminated personnel departments as an economy measure. In other cases, such departments were abandoned because the new profession had attracted practitioners who had not been equal to the challenge of their work.²⁸ However, a surprising number of personnel departments survived.

After the postwar setback, personnel management was usually reinstituted where it had been abandoned, and was initiated in many firms for the first time. By 1928, more than one third of all plants with more than 250 employees had such departments.²⁹

During the 1920's, the personnel department was given important

²⁵ Wolman, *Ebb and Flow in Trade Unionism*, pp. 236, 237.

²⁶ Lescoghier and Brandeis, *History of Labor*, p. 331.

²⁷ Turnover dropped from over 10% per month in 1920 to 2% per month in 1921. "Turnover Study by Policyholder's Service Bureau," Metropolitan Life Insurance Company. This study covered about 350 manufacturers having approximately 6,000,000 employees. *Personnel Journal*, vol. VIII (Oct., 1929).

²⁸ Lescoghier and Brandeis, *History of Labor*, p. 327.

²⁹ *Industrial Relations in Small Plants*, National Industrial Conference Board (New York, 1929), p. 20.

new duties. These included training of employees and foremen, supervision of workmen's compensation, employee health programs, the sifting out of the less desirable workers, and the further standardization of labor policies. The power to discharge an employee, which had been taken from the foreman during the war, was restored to him, often however with the personnel director retaining the right to place the employee in another department. Consultants trained in industrial psychology were increasingly utilized as an adjunct to personnel management.

If business was reluctant to abandon personnel management during the 1920-1921 business slump, it was even less inclined to do so during the Great Depression which started in 1929. In most cases where abandonment took place, personnel departments were eliminated only after two or three years of poor business had made drastic cost-cutting necessary.

The experiences during the 1921 recession and the depression of the 1930's provide insight about motivation behind the movement. If personnel management were designed only to cope with labor turnover in periods of labor shortages, or to discourage unionism, the practice would have been deliberately curtailed in periods when labor was plentiful and unions were unable to organize. Union membership fell rapidly from 1930 to 1933. Even where unions managed to retain recognition, bargaining power declined significantly. Unemployment increased rapidly. The fact that in this period management made every effort to retain the personnel department suggests that it was not conceived primarily as an anti-union weapon. Personnel management developed and persisted, as Professor Witte suggests, because "it came to be appreciated that however good the working conditions might be, and the arrangements of work and methods of pay perfectly scientific, the hoped for lowest possible costs of production often were not realized."³⁰ The movement was primarily motivated by the need for a more efficient organization of labor in the production process.

A second major wartime industrial relations development which was continued and expanded during the 1920's was the employee representation plan. Although, as we have noted earlier, employers had not been receptive to representation when it was established by the War Labor Board, such plans began to be developed voluntarily in the early 1920's.³¹ Employee representation enjoyed great

³⁰ Witte, *Managerial Ideas*, p. 9.

³¹ In September, 1920, the U. S. Chamber of Commerce published the results of a referendum submitted to its members in which a large majority of them endorsed dealings with shop committees. U. S. Chamber of Commerce, *Special Bulletin*, No. 31 (Sept. 1, 1920).

popularity throughout the rest of the decade and until the beginning of the Great Depression. By 1932, the number of business concerns having employee representation plans had declined 27.5 per cent from their peak in the 1920's, but the number of employees covered had declined less than 8 per cent. The explanation for this disparity is that many of the larger companies continued their plans throughout the depression years.³²

One reason for the alteration in management attitude toward employee representation between 1918 and 1921 was the desire to counter independent unionism. Thereafter during the 1920's employee representation was part of the widespread management effort that included such other weapons as the "open-shop" movement, the use of strikebreakers and labor spies, and recourse to harassing court action, to fight independent unionism.

Another major motivation for the establishment of employee representation during the 1920's was a desire to improve labor-management communication, particularly from the lower levels of business organization to the upper levels. One executive explained the continued popularity of his employee representation plan in these terms: "We've gotten a real education out of our experience. We hadn't realized as we grew bigger, how far away we had drifted from personal contact with the men in the plant. We . . . knew nothing of the men's feelings and grievances. The foremen would often be hardboiled with them and pay no attention to their complaints because the foremen were afraid of being criticized by the superintendents and high executives."³³ It was hoped that from such improved communications would come greater understanding, increased job interest, higher morale, and lower labor turnover.³⁴

After the start of the Great Depression, it appears that the desire to build better and closer relations with employees was a more important reason for the continuation of representation plans than was the desire to keep out unions, which were rapidly losing membership. Not only was employee representation costly, but from 1930 to 1933 it was forced to deal with the difficult problems arising from a large number of employee discharges and frequent reductions in wage rates. The fact that so many representation plans survived so exacting a trial showed their worth.

The third important development during this period was a great

³² Lescohier and Brandeis, *History of Labor*, p. 351.

³³ Robert R. Brooks, *As Steel Goes* (New Haven, 1940), p. 78.

³⁴ *Collective Bargaining through Employee Representation*, National Industrial Conference Board (New York, 1933), pp. 15-18.

variety of employee benefits which were either begun or expanded during the 1920's. Private pension plans became more numerous. By 1929, over three and one-half million workers were covered by noncontributory pensions.³⁵ A surprising number of new plans were adopted from mid-1929 to 1932, particularly in those industries least affected by the depression. When plans were discontinued it was usually because of the financial burden upon the company.³⁶ Employee stock purchase plans developed rapidly in the 1920's, particularly from 1921 to 1925. By 1927, more than 800,000 employees working for 315 separate companies were stockholders in their respective companies.³⁷ A small number of employers voluntarily established private unemployment insurance plans in the 1920's. The benefits from such plans were generally reserved for long service employees. Most plans were terminated by the depression and the rise of the federally stimulated state plans in 1935. Other welfare programs of this period included recreational activities, credit unions, loan funds, company housing developments, company nurses, industrial medical programs, some employee health welfare, profit-sharing programs, employee savings funds, and annual pay guarantees.³⁸ While some of these programs have long since been abandoned, many have been revived as modern fringe benefits under collective bargaining contracts.

The motivation behind these benefit programs of the 1920's is complex. They were an important part of the "welfare capitalism" management sold to employees in the 1920's as a substitute for independent unionism. Certainly a major reason for their existence was to counter unionism. The welfare benefits had their positive side, however, as had the earlier welfare work, personnel management, and employee representation plans. They were designed to hold good workers, to increase job interest, and to deepen employee loyalty to the company. Certainly these were major benefits which would be worth much to management if they could be achieved.

The fourth significant feature of the 1920's was the beginning of what today is commonly called "human relations in industry." This movement was stimulated by the work of Elton Mayo at the Hawthorne plant of Western Electric Company. The famous Hawthorne experiments of the late 1920's and early 1930's grew out of

³⁵ Of this total, 43.5% worked for railroads, 34.2% were in manufacturing employment and 18.5% worked for public utilities. Latimer, *Industrial Pension Systems in the United States and Canada*, pp. 39-41; Table VIII, p. 57; App. Table I, pp. 470 ff.; App. Table II, pp. 474-477.

³⁶ *Ibid.*, pp. 7, 843, 846.

³⁷ *Employee Stock Purchase Plans in the United States*, National Industrial Conference Board (New York, 1928), pp. 2, 35.

³⁸ Witte, *Managerial Ideas*, p. 8.

management's attempts to determine the effect upon worker productiveness of changing physical conditions of work. Mayo's colleague, Roethlisberger, concludes "what all their experiments had dramatically and conclusively demonstrated was the importance of employee attitudes and sentiments. It was clear that the responses of workers to what was happening about them were dependent upon the significance these events had for them. . . . Whether or not a person is going to give his services wholeheartedly to a job depends, in good part, on the way he feels about his job, his fellow-workers, and supervisors — the meaning for him of what is happening about him."³⁹

Mayo's work opened a new era of employer-employee relations. While personnel management and employee representation had recognized the existence of worker needs, Mayo's human relations categorized these needs and attempted to explain them with greater insight into the human personality. If the worker did not perform well, it was the supervisor's responsibility to motivate him through recourse to the newly developed knowledge. The concept of the worker as a person who "cooperates" in the production process had its real beginning in Mayo's work.

A fifth important influence upon the development of industrial relations policies in this period was a further restriction of immigration. This change had its origin in the war years when popular hysteria had arisen over the possible disloyalty of recent American immigrants. Cries went up to "Americanize" these new arrivals. There was a strong consciousness of the necessity for absorbing the 14,000,000 non-English speaking immigrants into American society. These feelings did not abate when the war ended.⁴⁰ Labor unions found increasing public support for their efforts to protect themselves from plentiful, cheap, hard-to-organize immigrants. Even some employers no longer desired a flow of immigrant labor if these people might be Bolsheviks waiting to seize property by revolution.⁴¹ The first postwar "red scare" had arrived, and with it came restrictive legislation.⁴²

³⁹ F. J. Roethlisberger, *Management and Morale* (Cambridge, 1943), pp. 13, 14, 15.

⁴⁰ "Official and unofficial propagandists united in developing a nationwide interest in the protection of America against dangers believed to inhere in free immigration and unassimilated masses of foreign born residents. Americanization and immigration were discussed from coast to coast in clubs, lodges, churches, schools and industries. The subject was 'front page copy' in newspapers and magazines, especially from 1917 to 1919." [Lescobier and Brandeis, *History of Labor*, p. 28.]

⁴¹ *Ibid.*, p. 30.

⁴² The annual average immigration from 1922 to 1931 was approximately 340,000 per year as compared with about 1,002,000 per year from 1905 to 1914. See the annual reports of the United States Commission of Immigration. Both the 1921 and the 1924 immigration laws favored admission of immigrants from northern and western Europe over those from southern and eastern Europe. For example, the 1924 law allotted 84% of the annual quota to the former area. This remained the case until July, 1929.

The decline of immigration helped create a more homogeneous industrial work force. The gradual Americanization of pre-1917 immigrants helped even more in accomplishing the same purpose. By the 1930's the pre-1917 immigrant had become so well integrated into American society that he was able to demand the same wages and working conditions as the native-born laborer. This melting pot effect was influential in motivating employers to undertake many of the improvements made in the 1920's in the treatment of workers.

A sixth factor affecting employers' industrial relations activities was the great improvement that took place between 1919 and 1933 in the level of education of the entire work force. Shortly after the war, many state governments responded to public opinion and increased the number of years of required public school attendance. The 1920's also witnessed a great expansion in vocational and technical education. The implications here for industrial relations policies were clear. The more highly educated worker demanded more considerate treatment from management. He would not respond to personnel policy which failed to show respect for him as an educated and trained individual.

A seventh influence on labor relations policy in this period was the fact that the corporation was reaching maturity as an American institution. Many of our modern corporate enterprises had come into existence after the Civil War. Many of these survived a perilous youth to become relatively well established and financially secure in a competitive business world. This security enabled management to experiment with the costly new labor relations policies which have been described.

Corporation maturity led to yet another significant development in labor relations. In the 1920's management was passing on a wide scale from owners to a professional executive class which owned an insignificant amount of stock in the corporation yet held operating control of the enterprise. It is probable, though unproved, that the professional manager's attitude toward industrial relations differed, in the 1920's, from that of the owner-manager he had succeeded. The new managers were perhaps less emotionally involved with the profitability of the firm. They held it their prerogative to consider the needs of employees for good wages and satisfactory working conditions.

A final factor influencing industrial relations policies in this period (and earlier) was the growth of man-hour productivity. While the reasons for this growth are many, it is sufficient to observe that

much of the progress in labor relations would not have been possible if our economy had not possessed this dynamic attribute. Higher wages, increased fringe benefits, shorter hours, and better working conditions all are a product of an economic system where the output per capita has shown significant long-term growth.

SUMMARY OF COMPARATIVE INFLUENCES

Having examined the policy changes of the first third of the century and the probable reasons for their adoption, it now becomes necessary to assess the relative importance of motivating forces.

Those factors chiefly responsible for the transformation of industrial relations policies between 1900 and 1933 can be grouped into three principal areas: (1) managerial response to the union movement; (2) public opinion and legislation; and (3) management's drive for increased production efficiency. The relative importance of these three factors can best be appreciated by summarizing the influence of each over the entire period.

Before World War I, union influence was limited and posed no real threat to the vast majority of industries. No doubt the very existence of unions stimulated certain nonunion employers to engage in welfare programs, but it took the great growth in union membership in World War I to provoke widespread defensive measures by management. Accentuated welfare activity and the development of personnel departments were, in part at least, responses to union organizing pressure. During the 1920's employer propagation of representation plans was mainly due to the threat of union organization, as was the further extension of employer welfare benefits (often called "welfare capitalism"). From 1929 through 1933, however, when union membership was dropping significantly from its postwar peak, both personnel department and employee representation plans were found to be so firmly established in the management structure of American business as to prove beyond all doubt that both had become much more than tools with which to fight the unions.

Public opinion and resulting legislation were largely responsible for the beginning of the industrial safety movement before 1917. During World War I, immigration restrictions accentuated the labor shortage in industry and caused employers to pursue policies designed to hold their employees and to utilize labor more efficiently. Public opinion dictated continuance, during the 1920's, of a restrictive immigration policy, which in turn did much to help create a homogeneous "Americanized" work force. Had immigration re-

sumed on the prewar scale, many improvements in the conditions of labor might have been long delayed. Public opinion also led to legislation which raised the educational level of the work force, facilitating and even forcing the addition of more sophisticated industrial relations techniques. On the other hand, from 1900 to 1933 management utilized the antiunion position of the courts to harass the unions. Doubtless the generally favorable public image of the businessman and the public distrust of unionism which prevailed during parts of this period lent support to judicial and other antiunion activities of a destructive rather than constructive nature. On balance, however, public opinion and politico-legal activity in the period contributed much more to progressive than to reactionary industrial relations trends.

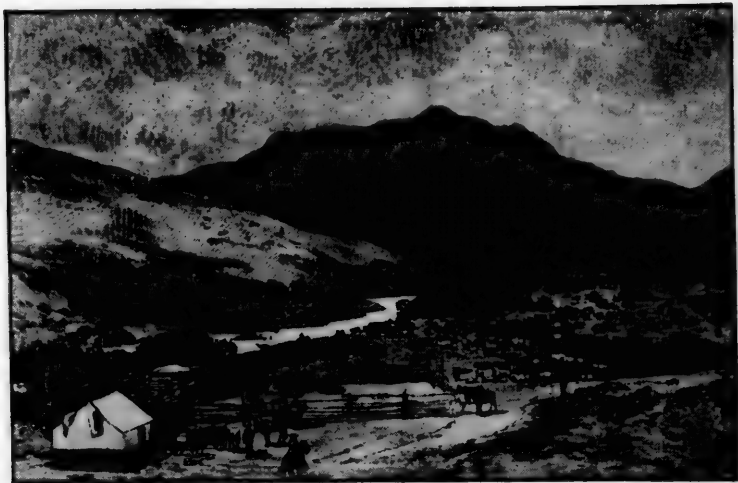
The third major influence, the necessity to meet growth and change with improved production efficiency, made many contributions to labor relations practice. Scientific Management was a notable example of such internally generated developments. Another was the early employer-granted welfare benefits, which derived partly from a need to improve efficiency and partly from employer humanitarianism. While the extension of welfare programs and the beginnings of personnel management in the World War I period were, as we have seen, partially responses to labor shortage, government intermediation, and union organizing activity, those improvements also were stimulated by a desire on the part of management to improve operating efficiency. These wartime industrial relations developments were built on and were extensions of earlier employer effort to utilize labor more effectively. During the 1920-1933 period, personnel management and employee representation both reflected this same desire, as did the extended use of pension and stock purchase plans and the various applications of industrial psychology that were springing out of concern for human relations in business. Simultaneously, the maturation of many of our big corporations and the professionalization of corporate management both exerted liberalizing influences upon industrial relations policies. The fact that forces external to the firm had stimulated some of these developments in the field of industrial relations does not obscure the importance of strong internal business motivations for their existence.

An impression appears to be entertained by many today that management has been largely passive in the development of industrial relations and has only instituted worthwhile improvements when goaded by external forces. This appears to be one of those mistaken generalizations which arises from an inadequate under-

standing of internal development and of the entire complex of motives which directs the course and pace of change in managerial practice.

Considering the entire period from the turn of the century to the Great Depression, one is impressed by the importance and inter-relationship of all three classes of influences. It is not possible to say that one factor has been of quantifiably greater importance than the others. This study can serve a useful purpose, however, if, on a broad plane, it focuses attention upon the continuous ebb and flow of motivating forces and at the same time specifically points up the extent to which improvements in labor relations were undertaken because of management's internally generated drive for increased production efficiency.





The Investment Boom In British-Texan Cattle Companies 1880-1885

¶ Like most speculative extravaganzas, the Western cattle boom was compounded out of a bona fide opportunity, exaggeration, gullibility, inadequate communications, dishonesty, and incompetence. There were some solid residual benefits, representing, in effect, an involuntary gift by British investors to their American cousins.

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The next to the last decade of the nineteenth century witnessed a great enthusiasm, not only in Eastern United States, but also in Great Britain, for investing in Western cattle companies. The phenomenon is an interesting example of how a windfall period was exploited by the lucky forerunners, whose success led to consolidation in large corporate bodies. The latter, however, were to find that the easy money was gone. Competition and other difficul-

ties put a quick end to the boom, and the investors were left high and dry atop their piles of worthless stocks. While the boom lasted, however, the nature of its psychology was clearly reflected in the British financial and popular periodical literature of the period. This article traces the boom psychology and the record of those corporate bodies to which it gave birth.¹

The cattle business as it became known to the British investor was the result of many years of hard work and some chance developments. Toward the end of the Civil War, many Texans began driving the South-Texas longhorns, descended from Spanish ancestors, north to the markets of a beef-hungry nation. Profits were enormous, and the number of such adventurers increased. In time, ranches were established by various bold individuals in Western Texas, particularly in the Texas Panhandle, practically on the heels of the Indians. The fact that buffalo, the Indian staple, had grazed so richly on the "Great American Desert" was in itself enough to point to the possibilities of the cattle business on the plains. In fact, the area was admirably suited to cattle raising, as long as the stock was able to roam as freely as the buffalo. Most of the ranching ventures were based upon the availability of just such free ranges, where cattle could feed without cost on land belonging to the government. Out-right ownership of sites beside streams or around springs gradually became the rule; but the bulk of the land in use cost nothing.²

The enormous profits of certain individuals were well known in the area and became known to the British through the tales recounted by adventuresome tourists, Western America being a favorite hunting ground of British sportsmen. At least one Irishman, John Adair, went into partnership in 1877 with his hunting guide, Charles

¹ This study of the Texas cattle boom has been based principally upon periodical literature, almost all of it published in England but of influence upon American readers as well. Most important are *The Economist*, *Weekly Commercial Times*, *Bankers' Gazette*, and *Railway Monitor*; a *Political, Literary, and General Newspaper* (hereafter, *Economist*); *London Times* (hereafter, *Times*); and *Fortnightly Review* (hereafter, *Fortnightly*). For their influence in America see George Rex Buckman, "Ranches and Rancheros of the Far West," *Lippincott's Magazine of Popular Literature and Science*, vol. XXIX (1882), p. 435.

The sources for the financial record of the companies have been, primarily, the *London Economist* and the *Investor's Monthly Manual*, new series (both published at the same office and frequently with identical items), together with the financial pages of the *London Times*. A major drawback of these sources lies in the fact that many of the companies under discussion were formed in Scotland, therefore attracting less interest from these London periodicals than would otherwise have been the case.

² For the background of the cattle range business see Edward Everett Dale, *The Range Cattle Industry* (Norman, Oklahoma, 1930); Ernest Staples Osgood, *The Day of the Cattleman* (Minneapolis, 1929, reprinted, 1954); Joseph Nimmo, Jr., "Range and Ranch Cattle Traffic," House Exec. Doc. 267, 48th Cong., 2d Sess. (1884-1885), vol. XXIX; H. M. Taylor, "On Importance of Range Cattle Industry," *Second Annual Report of the Bureau of Animal Industry for the Year 1885*, House Misc. Doc. 36, 48th Cong., 2d Sess. (1884-1885), vol. II, pp. 293-325. For the larger context of this article in the social and economic history of Texas, see John S. Spratt, *The Road to Spindletop; Economic Change in Texas, 1875-1901* (Dallas, 1955); and William Curry Holden, *Alkali Trails; or Social and Economic Movements of the Texas Frontier, 1846-1900* (Dallas, 1930).

Goodnight, and their JA brand became famous. Other Britishers flocked into the state.³

Just at the time the cattle industry in America was proving such a profitable venture for both American and British individuals, an enormous accumulation of capital was taking place in Great Britain. In 1880 the London *Economist* reported that annual new capital subscriptions had almost doubled in amount between 1877 and 1880.⁴ Under such conditions, it is not surprising that Britishers began looking for new avenues of investment.⁵

It did not take long for the cattle industry of America to present itself as one such opportunity. About this time considerable attention was being paid in Great Britain to the competition that American beef was offering the English product following the invention of canning processes and refrigerated transportation of raw meat.⁶ The shipment of live cattle was also rapidly increasing. In 1880 it was stated in the London *Times* that importation of cattle into England had increased 80 per cent since 1877.⁷ The same year saw the publication of a report of a parliamentary commission sent to the United States to study American agriculture, a report that dealt at length with the range cattle industry.⁸ Thus the reading public was fully aware of what was going on in Western America.

Many an article of the period described the ranching industry in glowing terms. Two such articles published in 1880 deserve special attention. One appeared in the London *Times* and another, more conservative but still enthusiastic, in the *Fortnightly Review*. The running of a cattle ranch was pictured as something of a sporting affair, for the "ordinary work consists of riding through plains, parks, and valleys." There were, it was said, only two short seasons of hard

³ Harley T. Burton, *A History of the JA Ranch* (Austin, 1928); also see *Times*, Aug. 29, 1883, p. 3; Sept. 5, 1883, p. 4. Davilla Bright, "Foreigners and Foreign Capital in the Cattle Business of the United States," *Cattleman*, vol. XXII (1936), pp. 34-35; L. F. Sheffy, "British Capital and the Cattle Business," *Cattleman*, vol. XVI (1930), p. 53; Angie Debo, ed., "An English View of the Wild West," *Panhandle-Plains Historical Review* (hereafter, *PPHR*), vol. VI (1933), pp. 24-44; Ernest Cabe, Jr., "A Sketch of the Life of James Hamilton Cator," *PPHR*, vol. VI (1933), pp. 16-20. For contemporary mention of some individually run enterprises see *Times*, Jan. 7, 1886, p. 5; Aug. 18, 1883, p. 4; Richard Harding Davis, *The West from a Car-Window* (New York, 1892), pp. 132-135.

⁴ *Economist*, vol. XXXVIII (1880), p. 1,510; see also *Banker's Magazine*, vol. XXXVIII (London, 1878), p. 191.

⁵ For background on British foreign investments see C. K. Hobson, *The Export of Capital* (New York, 1914), particularly pp. 77-120; A. K. Cairncross, *Home and Foreign Investment, 1870-1913; Studies in Capital Accumulation* (Cambridge, England, 1953). For the record of American use of foreign capital see Cleona Lewis, *America's Stake in International Investments* (Washington, D. C., 1938), pp. 1-113.

⁶ *Times*, Feb. 26, 1879, p. 11; also see James MacDonald, *Food from the Far West; or American Agriculture with Special Reference to the Beef Production and Importation of Dead Meat from America to Great Britain* (London and Edinburgh, 1878).

⁷ *Times*, April 6, 1880, p. 4.

⁸ Clare Read and Albert Pell, "Report of the Agricultural Interests Commission," in Great Britain. House of Commons. *British Sessional Papers, 1880* (Readex Microprint Edition, ed. Edgar L. Erickson), vol. XVIII, pp. 8-12.

work "when masters and men, well mounted," carried on a roundup.⁹

Various aspects of the industry were detailed, but particular attention was paid to the fact that the cattle need never be placed in barns since the winters were so mild. It was maintained that even in Montana the "cold season is tempered by the warm Japan current which comes over the Rocky Mountains."¹⁰ In addition, the "valleys and glens" and clusters of trees "serve the purpose of barns and stables." The grasses of the West contained "highly nutritious qualities" and "retain their full strength for the whole winter."¹¹

The low expenses of the cattle business were frequently mentioned. Most important, of course, were "the cheap lands" and "unoccupied valleys or plains."¹² The *Fortnightly Review* summarized it thus:¹³

To Old World ears it sounds not only strange, but hardly credible, that you or I can to-day . . . pick out for our stock a good range for grazing, as yet unoccupied, drive on to it a herd of ten thousand cattle, select a suitable spot near to a convenient creek, and there build our rancho or farmhouse . . . , and, in fact, make ourselves entirely at home, disporting ourselves as virtual owners of the land, without paying one penny for it, or outstepping any territorial or United States statute, or doing what is not perfectly lawful. There is no trouble about title, deeds, surveyors, and lawyers.

Nor were the other expenses of cattle raising much higher. Wages, it was said, were only some £6 a month, and each "herdsman" could take care of a thousand animals.¹⁴ There was no rent and no taxes except the head tax, which varied from 5 cents to 7 cents for cattle two years old and over. Furthermore, "there is understood to be considerable latitude in making these returns, and there are no surveyors of taxes to institute impertinent inquiries."¹⁵ Losses of cattle were always put at a low figure. The *Times* said losses from all sources would "vary from 2 to 3 per cent," but the *Fortnightly* said they would most probably be about 5 per cent, although they might go as high as 10 per cent. In short, the cattle were "reared and fed at a *minimum* of expense and trouble."¹⁶

In view of such low expenses and few losses, profits were, of course, very high. As early as 1878 the correspondent for the *Scotsman* had reported "that stock-raising in Texas has been, and is, a

⁹ *Times*, April 6, 1880, p. 4.

¹⁰ *Ibid.*

¹¹ W. Bailie Grohman, "Cattle Ranches in the Far West," *Fortnightly*, vol. XXXIV (1880), p. 444.

¹² *Times*, April 6, 1880, p. 4.

¹³ Grohman, "Cattle Ranches," p. 441.

¹⁴ *Ibid.*, p. 440; and *Times*, April 6, 1880, p. 4.

¹⁵ *Ibid.*

¹⁶ *Ibid.*; and Grohman, "Cattle Ranches," p. 446.

profitable line of business." With reasonable care and knowledge, "almost everyone . . . has made money; while a great many have raised themselves from the humble position of herd-boy to the possession of great wealth." Although "a few reckless Americans" had failed in the business, no Scotsman or Irishman ever had. He added that "at the present day capital invested in cattle-raising in Texas was paying more than 25 per cent. per annum."¹⁷ The *Fortnightly Review* said that although profits had once been over 100 per cent and that Americans still claimed such profits, the "actual truth" was that over a three-year period profits would run 28 to 30 per cent annually, and, over a period of seven years, 40 per cent. "The most trustworthy authorities" were cited as support for the claim that an investment of £10,000 would yield £8,800 in profits at the end of three years, with the rate increasing subsequently.¹⁸

Both the articles in the *Fortnightly Review* and in the *Times* stated, significantly, that Eastern American corporations were entering these ventures. It was also known that Englishmen acting as private individuals in partnership with their "camp-fire companions" of hunting trips were drawing 15 to 20 per cent interest on their capital.¹⁹ The implication was clear that if British individuals and American companies were profiting, British companies should do likewise.

These reports also gave instructions on where to start and how to buy the cattle. It was stated that "today, Wyoming, Montana, Idaho, and New Mexico, no less than the extreme western portions of Texas, are the most desirable countries in which to 'locate' a cattle ranche."²⁰ One of the most important techniques was buying cattle by "book count." This was a system by which the number of cattle were estimated through an inspection of the ranch's books, through which it could be established that so many head were bought and sold, and so many calves branded. The percentage of loss was estimated at a certain figure and conclusions drawn as to the actual number of the herd. This method was supposed to save time and expense for both buyer and seller and be easier on the cattle. The *Fortnightly Review* cautioned, however, that "this mode leaves a good many openings for sharp-witted 'cussedness,' to which the newly arrived 'tender foot' very frequently falls victim."²¹

Texas came in for its share of attention. Not only did accounts

¹⁷ MacDonald, *Food from the Far West*, p. 53.

¹⁸ Grohman, "Cattle Ranches," pp. 439, 449-450; in the case of profits the *Times* was the more conservative, estimating them at 20% on "a well-managed station": *Times*, April 6, 1880, p. 4.

¹⁹ Grohman, "Cattle Ranches," p. 450; and *Times*, April 6, 1880, p. 4.

²⁰ Grohman, "Cattle Ranches," p. 441.

²¹ *Ibid.*, p. 449.

note the historical circumstance that the cattle ranch business had its origin in Texas, but also that Texas had more cattle (5.5 million) than any other state or territory. There were some drawbacks, however. Texan grasses were "scorched with an almost tropical sun" and "bunched, dry, and often coarse."²² Western Texas was "liable to suffer from . . . great summer heats, producing every few years prolonged droughts."²³

It was with such a background of information that the first British company to invest in Texas ranches was formed. The Prairie Cattle Company was promoted by the American firm of Underwood, Clark, & Co., which had connections with the Scottish American Mortgage Company. The latter company had a reputation for solid business acumen and substantial dividends, but Underwood was later described in the memoirs of the knowledgeable John Clay as "a bit of an adventurer and a very smooth promoter."²⁴ The idea for the company was introduced in Edinburgh in 1880 and organization took place in January, 1881. An earl was made chairman of the board, a move characteristic of most of these companies. While this was done in order to increase the domestic prestige of the concern, the titled office holder also gave Americans the impression that the ranching ventures were the undertakings of British nobility.²⁵

The company had little difficulty in obtaining capital, once the announcement was made that it intended to deal in Western cattle ranching. The original capital was £100,000. When first proposed, the plan was to buy ranches in Colorado and New Mexico, but later a Texas ranch was added. In time the Texas properties became as important in the destinies of the company as were the others. The company's Texas range stretched over 400 square miles and at first was stocked with 29,803 head of cattle worth \$715,272. Sometime in 1881 the company acquired the thousand-square mile LIT ranch from George W. Littlefield, who may well have seen that ranching prosperity was at its peak. In 1882 the Quarter Circle T

²² *Times*, April 6, 1880, p. 4.

²³ Grohman, "Cattle Ranches," p. 443.

²⁴ John Clay, *My Life on the Range* (Chicago, 1924), pp. 16, 129. Clay was to become head of the cattle commission house of Clay, Robinson, and Company, Chicago. See *Papers Concerning the Prairie Cattle Company, Limited*, p. 17. Archives of the University of Texas Library.

²⁵ Clay, *My Life on the Range*, pp. 16, 129. L. F. Sheffy, "British Pounds and British Purebred," *PPHR*, vol. XI (1938), p. 60, says that the Prairie Cattle Company originated in Colorado in 1877 and moved into the Panhandle in 1877; possibly there was an American company with nearly the same name which then was organized in Great Britain as was the case with various other similar ventures. On the impression given Americans by titled directors see Roger V. Clements, "British Investments and American Legislative Restrictions in the Trans-Mississippi West, 1880-1900," *Mississippi Valley Historical Review* (hereafter, *MVHR*), vol. XLII (1955), pp. 208 and 208n.; Nimmo, "Range and Ranch Cattle Traffic," p. 46.

herd was acquired from Thomas S. Bugbee for \$36,000.²⁶ The company's report for 1883 indicated holdings of 139,450 acres in fee simple and a herd numbered at 162,665 head.²⁷

The company prospectus had stressed the great profits that were being made in the Western cattle industry, running from 25 to 40 per cent. From the company's record during the first three years of its existence, it appeared that this promise was indeed to be fulfilled. For the year 1881 dividends and bonus amounted to 19% per cent; for 1882, 27% per cent; and for 1883, 20% per cent.²⁸

Nevertheless, by 1883 disillusionment was beginning, in spite of the high dividends. The auditors were apparently unenthusiastic about Prairie's business methods and offered "some words of caution to the proprietors."²⁹ Then, in February of 1883, a letter to the editor of the *Economist* from one who claimed "several years' experience" in Western cattle raising pointed out that in a speech before the company the chairman, Guthrie Smith, had made statements inconsistent with the reports of the company. When Smith explained that certain items, amounting to 15,000 head of cattle, had not been included in the reports, the correspondent suggested that perhaps there was room for doubt "as to the reliability and fullness of the rest of the report."³⁰

More was to come, however. At that time a Willard R. Green was the active manager of the ranch appointed by Underwood, Clark, & Co., the promoters and official managers. In the spring of 1883 Duncan Smith, the managing director of the Scottish American Mortgage Company and secretary of the Prairie Cattle Company, addressed a letter to the shareholders of the latter announcing that he had employed an inspector from his mortgage firm to check the statements of Green. Although the report was labeled a "whitewash," Green, at least, was replaced.³¹

Credence is given to the "whitewash" charge by the fact that when Underwood, Clark, & Co. created the Union Land and Cattle Com-

²⁶ Clay, *My Life on the Range*, p. 129; Bright, "Foreigners and Foreign Capital," p. 22; Walter Baron von Richtofen, *Cattle Raising on the Plains of North America* (New York, 1885), pp. 49, 55; J. Fred Rippey, "British Investments in Texas Lands and Livestock," *Southwestern Historical Quarterly* (hereafter *SHQ*), vol. LVIII (1955), p. 333; J. Evetts Haley, *George W. Littlefield, Texan* (Norman, Oklahoma, 1943), pp. 128-129; Sheffy, "British Pounds," p. 60; and *Brand Book Containing the Constitution, By-laws, and Brands of the Members of the Pan Handle Stock Association of Mobeetie, Texas* (Kansas City, Missouri, n.d., photostatic copy in University of Texas Library, hereafter *Brand Book*), p. 31.

²⁷ *Economist*, vol. XLII (1884), p. 142; cf. lower figures given by Clay, *My Life on the Range*, pp. 130-131.

²⁸ See Appendix; *Times*, March 23, 1883, p. 9; *Economist*, vol. XLII (1884), p. 142; Clay, *My Life on the Range*, p. 130.

²⁹ *Investor's Monthly Manual*, vol. XIII (1883), p. 51.

³⁰ *Economist*, vol. XLI (1883), pp. 373, 401, 431.

³¹ Clay, *My Life on the Range*, pp. 15, 132; *Investor's Monthly Manual*, vol. XIII (1883), p. 631.

pany, Limited, in January of 1883, both Guthrie and Duncan Smith were members of its board. The object of this new company was "to acquire extensive estates, ranches, and grazing facilities in the county of Ochiltree and neighboring counties in the State of Texas, together with the herds of cattle thereon, and to buy, breed, and sell cattle and other livestock."³² By mid-February, however, the prospectus had been withdrawn and all deposits returned because the shareholders of the Prairie Cattle Company objected to the double allegiance of the two Smiths.³³ In view of the continuing cooperation between Duncan Smith and Underwood, Clark, & Co., we may guess that Smith had hoped, by sending his own inspector to Texas, to forestall a more serious inquiry.

Further difficulties involving Underwood, Clark, & Co. were to follow. It was the custom of the time for the promoters to maintain an interest in their promotions, probably both to insure an honest transaction and to show their confidence in the venture. This had been done in the case of the Prairie Cattle Company, but Underwood, Clark, & Co. was not pleased with the arrangements. According to Clay, it was as a result of the Smith-sponsored investigation that their firm "saw what was coming, and before the bubble burst, they began forcing a settlement of their deferred interest."³⁴ In September, 1883, a provisional agreement was made with Underwood, Clark, & Co. for the surrender of their deferred interest, but this "caused so much discussion" that it was withdrawn.³⁵ Nevertheless, by the end of March, 1884, we find that the capital of the company had been increased "by the commutation of Messrs. Underwood, Clark, & Co.'s deferred interest for £80,000."³⁶ According to Clay, this deferred interest "was not worth the paper it was written on," but the directors were led to agree to the move on the basis of another inspection trip carried out under the leadership of a member of the board. The entire group "had never seen a cattle ranch. They were ignorant of conditions, of climate, of the ways of the West. They ran up against a hard proposition when they tackled Underwood, Clark, & Co."³⁷ As a result, their report even "recommended the compromise with the promoters."³⁸ Thus Underwood, Clark, &

³² *Economist*, vol. XLI (1883), p. 111.

³³ *Ibid.*, pp. 131, 172; *Investor's Monthly Manual*, vol. XIII (1883), pp. 48, 96. It was possibly in reference to this venture that a letter to the editor of the *Times* on March 28, 1883, p. 5, referred to two large ranches offered "a few weeks ago . . . but both now withdrawn" which were "loaded with about 40 per cent. of indefensible charges and extravagant commissions" by the promoters.

³⁴ Clay, *My Life on the Range*, p. 132.

³⁵ *Economist*, vol. XLII (1884), p. 142.

³⁶ *Ibid.*, p. 365.

³⁷ Clay, *My Life on the Range*, p. 133.

³⁸ *Ibid.*, p. 134.

Co. escaped the consequences of their overoptimistic prospectus. It was later discovered that in 1881 they had collected twice for the purchase of cattle and horses, representing a loss to Prairie of \$100,863. A compromise was arranged in 1886 by which the firm returned \$65,000.³⁹

The next British company to invest in Texas ranching was the Texas Land and Cattle Company, Limited. Created in 1881, its promoters were the ubiquitous Underwood, Clark, & Co. In 1882 a dividend of 15 per cent was paid to the shareholders and one half the profits over 10 per cent went to the promoters, as had been agreed. This amounted to £4,500, or another 5 per cent.⁴⁰ The company's reports were questioned from the very first. The *Investor's Monthly Manual* pointed out that this 20 per cent disbursement did not represent profit from the sale of cattle, but, as the chairman himself had said, from "the increment of value on the stock of cattle during the year." The *Manual* asked whether, if the value of cattle were to fall during 1883, the shareholders and Underwood, Clark, & Co. would be "asked to refund this money?"⁴¹

The next few dividends of the company, although not as spectacular, were nevertheless considerable. In 1883 the company paid 12½ per cent plus £3,700 "upon the deferred shares issued to Messrs Underwood, Clark, & Co."⁴² For 1884 and 1885 the dividends were 6 and 5 per cent, respectively.⁴³

The year 1882 was the peak year in the investment boom. Throughout the year John Clay was kept busy skipping about the United States inspecting ranches that were being offered for sale to British companies. There was a feverish investment of British money in all directions; in August, 1882, the *Economist* reported that 1,581 new companies had been registered in the previous 12 months. Nor was the land company craze limited to Western United States. Australia came in for a large share of British attention, and a land and cattle company was formed to purchase four haciendas in Mexico.⁴⁴

Meanwhile, Texas and the cattle business remained constantly before the eye of the British public. Optimistic reports continued to appear in the *Times*, even one that described, in complete contradiction to most contemporary accounts, the prevalence of law

³⁹ *Ibid.*, p. 137; Haley, George W. Littlefield, p. 130.

⁴⁰ *Economist*, vol. XLI (1883), p. 143; *Investor's Monthly Manual*, vol. XIII (1883), pp. 51, 95. This would indicate a capital of £90,000; conflicting reports on capital are given by Richtofen, *Cattle Raising*, p. 54, and Rippey, "British Investments in Texas," p. 336.

⁴¹ *Investor's Monthly Manual*, vol. XIII (1883), p. 51.

⁴² *Ibid.*, vol. XIV (1884), p. 99; *Economist*, vol. XLII (1884), p. 208.

⁴³ See Appendix.

⁴⁴ Clay, *My Life on the Range*, pp. 16-79, *passim.*, and particularly, p. 26; *Economist*, vol. XL (1882), pp. 972, 1,411; *Investor's Monthly Manual*, vol. XII (1882), p. 564.

and order in Texas.⁴⁵ It is not surprising, therefore, that in 1882 four major cattle companies whose ranches were in Texas were formed. The Cattle Ranch and Land Company, Limited, was one of these. The promoters were Webster, Hoare, & Co. Clay reminisced that Webster was a "genteel pawnbroker" who would take up any matter "so long as a penny could be turned to his advantage." He was not known for honesty and was "unscrupulous, inclined to be immoral." Later, to avoid a trial in a criminal court, he committed suicide.⁴⁶ The owners of the ranch took the deferred shares of the company in payment and provided a book count of the cattle. The vendors consisted of Rufus Hatch, a New York stock exchange operator who "had led an adventurous financial life," J. John Drew, who has been described as "a miserable specimen of mankind," with an "evil tongue" and "no sense of honor," and Earl W. Spencer, who became manager of the ranch for the British company.⁴⁷ Webster, Hoare, & Co. took a large block of ordinary shares as a commission for flotation.⁴⁸

The beginnings of the company were auspicious. The authorized capital of the company was £400,000, and 20,000 seven-pound shares were issued at once. The statement was made that the company intended to buy a ranch with 7,000 head of cattle and "rights" over 2,000 acres of land in Texas and ranges extending into Oklahoma and Kansas.⁴⁹ At the end of 1882 the company announced that, although the final accounts were not yet in, the directors believed they would be able "to recommend a dividend at the rate of about 15 per cent. per annum" for the nine-month period, March through November.⁵⁰ Clay explained the profit in this way: the original herd bought from Hatch numbered 7,000; several other herds plus 4,000 or 5,000 Texas steers were bought during the summer. Out of these herds — the capital stock before any increase — \$128,000 worth were sold. Eighty-five thousand dollars was figured as the profit, although actually the transaction represented liquidation of capital.⁵¹ At the first annual meeting, held in February of 1883, the manager and directors "who had visited the property . . . made statements, from which it

⁴⁵ *Times*, Nov. 29, 1881, p. 3; Oct. 20, 1882.

⁴⁶ Clay, *My Life on the Range*, p. 21.

⁴⁷ *Ibid.*, pp. 20-21, 24, 169; for Drew's first name see Estelle D. Tinkler, "Nobility's Ranch: a History of the Rocking Chair Ranch," *PPHR*, vol. XV (1942), p. 15.

⁴⁸ *Investor's Monthly Manual*, vol. XII (1882), p. 144; Clay, *My Life on the Range*, pp. 21, 24; *Times*, Feb. 9, 1883, p. 8.

⁴⁹ *Economist*, vol. XL (1882), p. 294; *Investor's Monthly Manual*, vol. XII (1882), p. 144; Clay, *My Life on the Range*, pp. 20, 23.

⁵⁰ *Economist*, vol. XL (1882), p. 1,564; cf. with *Investor's Monthly Manual*, vol. XII (1882), p. 652.

⁵¹ Clay, *My Life on the Range*, p. 168. The official statement of profit was \$88,304; *Economist*, vol. XLI (1883), p. 143; and *Investor's Monthly Manual*, vol. XIII (1883), p. 137.

appeared that the position and prospects of the company were favourable in the extreme."⁵² The next annual report did indeed seem to indicate great prosperity: 4,461 calves branded; \$145,000 in sales; a net profit of \$101,000. No losses were mentioned and the total number of cattle at the end of the year stood at 28,197, including some purchases.⁵³

It was a short-lived triumph, however. In 1884 the company was unable to sell more than \$50,000 worth of cattle. This was not enough to pay for the year's expenses. Nevertheless, the company figured that they had made a profit of \$90,000 based on the increased value of the herd. No dividend was paid, but at least the paper profit was somewhat reassuring. Still, we find that in early 1884 one of the shareholders sent out a critical report to his fellow investors.⁵⁴ In 1885 the company was reorganized and the manager, Spencer, resigned. The new management found that there had been much extravagance and that many cattle that had died had not been reported. Some herds bought on "book count" had been vastly overestimated. And the winter of 1884-1885 was severe. A count made in the fall of 1885 showed only 13,500 head, instead of the 31,762 reported in November, 1884.⁵⁵

The second company formed in 1882 was the Hansford Land and Cattle Co., Ltd. The nominal value of the shares when formed was £209,740. Herds were bought from the Adobe Walls, Bugbee, and Word & Snider ranches.⁵⁶ The rise and fall of this venture can be briefly traced. It apparently mustered considerable market confidence at first, for in 1883 securities of the firm were selling for 6s.6d. above par. Dividends paid in 1884 and 1885 were 6 per cent and 7 per cent, respectively.⁵⁷ But the results for 1885, a bad year for all companies, were no better for the Hansford. Profit was only £9,353. The explanation was given that "the weather during last winter and spring (1884-85) was exceptionally severe, and . . . the shortage of calves and losses of other cattle have been somewhat heavy." It was further noted that "after giving the whole subject the fullest consideration, the directors have decided to recommend that no dividend be paid, but that this balance . . . be carried forward, for the purpose of buying cattle to repair the losses sustained during the year."⁵⁸

⁵² *Times*, Feb. 9, 1883, p. 8; see also *Times*, March 23, 1883, p. 9.

⁵³ Clay, *My Life on the Range*, p. 168.

⁵⁴ *Ibid.*, pp. 169-170.

⁵⁵ *Ibid.*, pp. 169-171; *Economist*, vol. XLIV (1886), p. 365.

⁵⁶ Rippey, "British Investments in Texas," p. 336; *Brand Book*, p. 31.

⁵⁷ Appendix; Richtofen, *Cattle Raising*, p. 55.

⁵⁸ *Economist*, vol. XLIV (1886), p. 183; *Investor's Monthly Manual*, vol. XVI (1886), p. 95.

One of the most important of the British cattle ventures was the Matador Land and Cattle Company, Limited. Its history to 1915 has been ably and thoroughly surveyed by William M. Pearce.⁵⁹ The company was formed in 1882 for the purpose of buying out the Matador Land and Cattle Company of Fort Worth, which had been formed in 1879 through the efforts of Henry H. Campbell, Alfred Markham Britton, and L. W. Lomax, among others. One of the British directors was the secretary of the Texas Land and Cattle Company, described earlier. The capital was originally set at £300,000, but soon was raised to £400,000 and then to £500,000, all in ten-pound shares. One and a quarter million dollars were paid for the ranch, including 40,000 head of cattle and 100,000 acres of land held in fee simple, plus grazing rights. The 1882 prospectus referred to a range of 1,500,000 acres, but subsequent examination revealed that the range rights extended over only about 200,000 acres. By the end of 1883, the company claimed 374,717 acres held in fee simple, and by 1890, 444,657.

The company made a prosperous beginning. In 1882 it owned 42,000 head of cattle, "book count." The next year the firm bought 20,000 head, had a calf crop of 20,000, and sold 8,500. The year after that 16,000 were sold. Dividends during the first three years were moderate but steady: in 1883, 8 per cent; in 1884, 6 per cent; and in 1885, 7 per cent. By 1886, however, profits had dropped to £8,834, and no dividends were paid.⁶⁰

The Western Land and Cattle Company also made a big splash in the first year of its existence, but can be considered only of minor importance in the long run. It was created in mid-1882 with a capital of £300,000 in 23,000 shares, half of which were preferred, half ordinary. At the first general meeting of the company held in October, 1882, the announcement was made that 25,421 head of cattle had been bought for \$590,116 and that the year's calves would total 6,000. They expected to sell 2,600 head.⁶¹

This company's first year was truly a spectacular one. The familiar story of low costs was repeated in the annual report: "No rent or taxes had to be paid, and . . . no expenditure whatever was in-

⁵⁹ William M. Pearce, "A History of the Matador Land and Cattle Company, Limited, from 1882 to 1915" (unpublished Ph.D. dissertation, University of Texas, 1952) [hereafter, "History of Matador"].

⁶⁰ Photostat of Prospectus, pp. 1-2; Photostats of Annual Reports, 1884, pp. 3-4, 6; 1885, pp. 3-4, 6; 1886, pp. 3-4, 6; 1887, p. 9; 1891, p. 6. Reports and Associated Documents of the Matador Land and Cattle Company, Limited, Archives of the University of Texas Library; this writer was guided to this material by Pearce, "History of Matador," pp. 11, 13-16, 30-31, 43-44, 46, 51; notice of most of these reports was given in the *Economist* and *Investor's Monthly Manual*; also see Clay, *My Life on the Range*, p. 316; *Times*, Aug. 29, 1883, p. 3; Sheffy, "British Pounds," p. 62.

⁶¹ *Investor's Monthly Manual*, vol. XIII (1883), p. 371; *Times*, Oct. 20, 1882, p. 9.

curred for feeding, the cattle thriving admirably on the prairie grasses."⁶² The expectations of the shareholders being thus aroused, it was only natural that the report for 1882 announced a 20 per cent dividend on ordinary shares, plus 5 per cent on preferred shares.⁶³ In March, 1883, a letter to the editor of the *Times* pointed to this performance with pride, comparing it to the record of the Prairie Cattle Company.⁶⁴ And in February a shareholder in the company stressed, in answer to criticisms in the *Economist*, that "I do not know what other companies may be doing, but the Western has divided only cash actually earned and in hand."⁶⁵ In answer to this statement, a letter signed by "Vaquero" asked what these "cash earnings" represented. He said that the profits of a cattle ranch were figured after the fall roundup when sales were made and receipts balanced with expenses. "These sales of cattle, then, in the fall . . . represent the gross cash profits . . . for the whole year . . . while only five months working expenses are charged against it, which makes it very easy to declare dividend at a high rate."⁶⁶ Furthermore, the auditors of the firm reported that after sales of over £11,632 the remainder of the herd had still been valued as at the time of purchase, namely over £100,000, "on the assumption that the increased value arising from the growth of the herd alone would be sufficient to replace the amount of stock sold. In the absence of any particulars existing here . . . , we should . . . urge on the company the desirability of being cautious in dealing with the dividend until the business has been tested by further experience." The *Economist*, therefore, considered the dividend "a mistake."⁶⁷

Late in 1882 announcement was made of the creation of the Freehold Ranch and Cattle Company, "to purchase a cattle ranch and stock in Texas, and to embark in the cattle business." This venture was capitalized at £250,000, with stock issued in £5 shares of which 40,000 were preferred.⁶⁸ Nothing more was heard of this company in the financial journals.

The investments of 1882 titilated the speculative imagination of financial and other writers of Great Britain, with the result that throughout the next year there was a constant chorus of praise for the new business.⁶⁹ Ranching was "well known to have recently been

⁶² *Ibid.*

⁶³ *Economist*, vol. XLI (1883), pp. 143, 194; *Investor's Monthly Manual*, vol. XIII (1883), p. 96.

⁶⁴ *Times*, March 23, 1883, p. 9.

⁶⁵ *Economist*, vol. XLI (1883), p. 164.

⁶⁶ *Ibid.*, pp. 372-373.

⁶⁷ *Ibid.*, p. 191; also in *Investor's Monthly Manual*, vol. XIII (1883), p. 51.

⁶⁸ *Economist*, vol. XL (1882), p. 1,597; *Investor's Monthly Manual*, vol. XII (1882), p. 654.

⁶⁹ One work published in America but supposed to have had a great effect in Great Britain

a profitable business, earning, with good management, 25 to 50 per cent. One Scottish company last spring divided among its shareholders 26 per cent. as the dividend for the year . . . , and many economically managed private concerns have done still better."⁷⁰ The record of the Prairie Cattle Company was obviously of particular importance. The *Investor's Monthly Manual* in discussing the new cattle and ranch companies in early 1883 stated that "the prospectuses of nearly all of them have dwelt upon the success of the Prairie Cattle Company, doubtless with the object of conveying the impression that they had but to transplant their shareholders' capital into the wilderness to realize like results."⁷¹

Many of the same themes that had been sounded earlier now came in for development and elaboration with full chordal treatment. Expenses were still supposed to be negligible. Wages and maintenance were the major sources of outgo. "Taxes do not anywhere average over 25 cents per head and the collector . . . accepts usually without question the numbers given by the ranch man." Total expenses were still estimated at \$1.00 per head, although "many private herds of over 10,000 are run for half that figure."⁷² Two cents per acre was supposed to be the cost of annual rental where necessary. "The expense of raising cattle is thus reduced to a minimum, and there is no reason for surprise at the large fortunes which are rapidly being amassed in these grazing districts."⁷³

In reply to those who had begun to point out the way in which these companies were being cheated through book-count sales of cattle, it was maintained that "despite such disadvantages," ranching was still "the most ready method for the man of moderate capital to . . . obtain an early and adequate return on his outlay." Although admitting that the business "requires much practical tact and forethought" and that inadequate knowledge, carelessness, and lax management could lead to ruin, observers also stated that "despite such blunders . . . many considerable concerns are earning over 20 per cent . . . and where the management is practical, intelligent, and honest, 30 per cent. is frequently secured." Profits could be made "from the first establishment of a herd." Detailed figures were given for a hypothetical ranch of 20,000 cattle. For such an establishment,

was James S. Brisbin, *The Beef Bonanza; or, How to Get Rich on the Plains. Being a Description of Cattle-Growing, Sheep-Farming, Horse Raising, and Dairying in the West* (Philadelphia, 1881). Its publication in the United States places it somewhat outside the scope of this article. A new edition with a foreword by Gilbert C. Fite was published by the University of Oklahoma Press in September, 1959.

⁷⁰ *Times*, Jan. 26, 1883, p. 3.

⁷¹ *Investor's Monthly Manual*, vol. XIII (1883), p. 51; a similar statement was carried in the *Economist*, vol. XLI (1883), p. 131.

⁷² *Times*, Jan. 26, 1883, p. 3.

⁷³ *Times*, Feb. 11, 1883, p. 11.

capital outlay would total \$612,100; first-year expenses (e.g., manager's salary at \$12,000) would be \$25,600; and first-year sales (2,500 steers) would amount to \$80,000. The estimated calf crop of 3,000 would be considered worth an immediate further profit of \$15,000. After the first year, expenses would go down and the number of sales would go up, as should the number of calves.⁷⁴

On the other hand, there were some who were not taken in by the spectacular dividends and who urged caution upon investors in similar ventures. Statements were made that "certain ranching companies whose shares are chiefly held north of the Tweed, have done, and will do, well; but the very points that have made these companies successful are conspicuously absent from the schemes of the majority." Warnings were uttered that if the public were "led away by a cattle-ranch 'boom,' signs of which are not wanting, there can be but one result — bitter disappointment."⁷⁵ In February, 1883, the *Economist* sounded a cautious note, saying that these were merely old-fashioned land companies with a new name, a "necessary catch word" supplied by the Prairie. "Every Land Company now brought forward must be a 'Cattle Company' as well."⁷⁶ Furthermore, the four most impressive companies, the Prairie, the Texas, the Cattle Rancho, and the Western, were all Texas companies. "Now, we are very far from decrying the value of Texas as a cattle-raising country. Indeed, it is well known that there are vast tracts in that immense State — nearly two and a half times the area of the United Kingdom — excellently well adapted for breeding purposes." But the success of one company did not necessarily signify that all companies would succeed.⁷⁷

The idea was also developed that competition would soon "end by checking excessive profits in the Texan cattle trade." The "inflated prices" of cattle could not continue indefinitely.⁷⁸ The *Investor's Monthly Manual* also joined in the chorus, noting "it is apparent that the profits of the earlier companies have already been much swollen by the comparatively high prices offered for cattle by the later ventures."⁷⁹

These statements did not long go unchallenged. A stockholder in the Western Cattle Company wrote to the editor of the *Economist* saying that it was a "delusion" to suppose the market could become glutted. "The companies are simply buying up and converting into

⁷⁴ *Times*, Jan. 26, 1883, p. 3.

⁷⁵ *Times*, March 20, 1883, p. 11. For further correspondence on the subject see *Times*, March 23, 1883, p. 9, and March 24, 1883, p. 11.

⁷⁶ *Economist*, vol. XLI (1883), p. 131.

⁷⁷ *Ibid.*

⁷⁸ *Ibid.*

⁷⁹ *Investor's Monthly Manual*, vol. XIII (1883), p. 51.

joint-stock enterprises smaller businesses that have been successfully conducted by private individuals," and could not be considered to increase the number of cattle simply by their creation. An increase would come only after a number of years by which time demand would have also increased. At the same time a firm of cattle ranch and land brokers in New York produced the statement that "the American cattle trade can never be overdone." They pointed out that the grazing area of "those great breeding States — Texas, Kansas, and Colorado" was rapidly diminishing, thus restricting rather than increasing the number of cattle while at the same time doing no damage to the companies since they could sell their land "for ten times its original cost." It was predicted that America would soon begin importing beef from Australia and the cattle business would "continue to be the most lucrative business in the world."⁸⁰ The editor of the *Economist* retorted that statistics showed the number of cattle to be rapidly increasing and the price of meat and cattle to be falling. The period of high prices was "passing away."⁸¹

A further source of some preoccupation was whether the British investor was getting an honest deal. In March, 1883, a letter to the editor of the *Times* suggested that buyers should wonder why "such exceedingly flourishing undertakings should be offered so freely to the public by the vendors."⁸² Another correspondent replied that the reason was simply a need of capital for expansion and that most vendors were "anxious to leave the whole of their capital in the business."⁸³ Still a third letter writer said that he was familiar with American cattle ranching and although "there can be no doubt whatever that there are few better investments than well-selected and well-stocked ranches in certain States of North America," the vendors of these ranches "hope to sell from 20 to 50 per cent. higher than they could obtain from their own countrymen."⁸⁴ The second correspondent did not agree on the question of higher asking prices, although conceding that speculators could play havoc with values and that owners should be dealt with directly, that "book count" or "ranch delivery" should be avoided, and that vendors should by all means remain "largely interested in the undertaking."⁸⁵ Elsewhere, it was stated on this question that "there is at this moment many a Texan and Californian ranche-owner only too ready to realise a fancy price for his property."⁸⁶ A letter sent to the *Economist* said that the

⁸⁰ *Economist*, vol. XLI (1883), p. 164.

⁸¹ *Ibid.*, pp. 190-191.

⁸² *Times*, March 20, 1883, p. 11.

⁸³ *Ibid.*, March 28, 1883, p. 5.

⁸⁴ *Ibid.*, March 20, 1883, p. 11.

⁸⁵ *Ibid.*, March 28, 1883, p. 5.

⁸⁶ *Investor's Monthly Manual*, vol. XIII (1883), p. 51.

British companies were "in every instance" buying on book count, and that overestimates of 50 per cent were not unknown. Shareholders could "be certain that the book number which they buy is never under-estimated."⁸⁷

There was also a question about the nature of the dividends being paid. Some of the high dividends, it was said, were being paid out of capital or on the inflated value of herds, instead of on the increase of the herds. Even this increase was "greatly exaggerated," as nothing was being allowed for losses in the calf crop.⁸⁸

In view of the size of the Scottish interest in cattle companies, it is not surprising that a certain animosity should develop toward the London *Economist* and its criticisms of these enterprises.⁸⁹ Somewhat in the but-for-the-grace-of-God attitude, the *Economist* suggested that had the Prairie Cattle Company been a London concern the nucleus of the speculation would also have been there.⁹⁰ A shareholder of the Western Cattle Company wrote to the journal that it was "simply incredible to us on this side of the border to see that English investors, who have been throwing away millions . . . should ignore a business which has hitherto been splendidly successful, and which cannot fail, under prudent management, still to return larger profits than almost any investment in the market, and that practically without risk." The editor of the *Economist* replied that "one would have thought that having discovered an investment capable of yielding 20 per cent 'practically without risk,'" the Scots would have been content.⁹¹ The true nature of the issue appeared in the next letter from the correspondent when he objected to a "journal of the standing of the *Economist* . . . depreciating" the cattle companies.⁹²

Perhaps because of this adverse criticism, the promoters of cattle companies did not have nearly as much success in 1883 as they had enjoyed the preceding year. Clay reported that an attempt to float a company in Edinburgh — one with excellent prospects — had not been "kindly received."⁹³

⁸⁷ *Economist*, vol. XLI (1883), p. 373.

⁸⁸ *Ibid.*; *Investor's Monthly Manual*, vol. XIII (1883), p. 51.

⁸⁹ According to an article entitled "Scottish Capital Abroad," which appeared in *Blackwood's Magazine*, vol. CXXXVI (1884), pp. 477 and 479, Scotland had invested well over £4,000,000 in "wild cattle." These companies represented approximately a tenth of all Scottish investments abroad with "land companies" accounting for another tenth, and investment-mortgage companies representing a half. The cattle companies were estimated as paying in 1883 an average of about 8 per cent in dividends and interest, more than any other type of Scottish investment.

⁹⁰ *Economist*, vol. XLI (1883), p. 131.

⁹¹ *Ibid.*, p. 164.

⁹² *Ibid.*, p. 194.

⁹³ Clay, *My Life on the Range*, p. 91.

The only cattle company that was created in 1883 never became important. The Rocking Chair Rancho Company, Limited, was floated in London in 1883 by the team of Earl W. Spencer and John Drew, the same men who had promoted the Cattle Rancho and Land Company. Some idea of the nature of the operation may be gathered from the fact that the Kansas City firm of Conkle and Lytle had bought the herd and brand from the founders of the ranch in 1881, and the land from the New York and Texas Land Company, Limited, in February, 1883.⁹⁴ In April they sold both land and herd to Spencer and Drew and within a month the Rocking Chair Rancho Company, Limited, was in possession of the herd, the land being transferred in July. The principal owner was Sir Dudley Coutts Majoribanks, first Baron of Tweedmouth. In 1887 John Campbell Hamilton Gordon, seventh Earl of Aberdeen, and son-in-law of Tweedmouth, became joint owner.⁹⁵

By 1884 the London *Economist*, strangely enough, was becoming more lenient toward the cattle companies than it had been a year earlier. Perhaps it was because the "rush" had subsided and "a calmer view . . . entertained of their prospects, even in Dundee." In any case, it was now admitted that "a well-managed American cattle and land, or rancho, undertaking can be conducted profitably by a British joint stock company." As examples, it pointed to the Prairie Cattle Company, the Texas Land and Cattle Company, and the Matador Land and Cattle Company. "The wild prophecies that turned the heads of our Scotch neighbours twelve months back justly incurred censure; but there is probably a fair opening amongst these concerns."⁹⁶

In the spring of 1884 a book by Reginald Aldridge served to increase the optimism of investors, even though the peak of good fortune had already passed. Aldridge had gone to America in 1877 and three years later had bought, in partnership, a ranch in the Panhandle of Texas.⁹⁷ His answer to the question "Will it pay?" was that "it has paid, and I do not see any reason why it should not continue to pay."⁹⁸ Although admitting that the time of spectacular profits was gone, he maintained that the business was now "settling down on a

⁹⁴ On the New York and Texas Land Company, Limited, organized by English and American capitalists about 1879, see Sheffy, "British Founds," pp. 55 and 61; Estelle D. Tinkler, "Nobility's Rancho: a History of the Rocking Chair Rancho," *PPHR*, vol. XV (1942), p. 3; *Times*, Jan. 26, 1883, p. 3.

⁹⁵ Tinkler, "Nobility's Rancho," pp. 12-16, *passim*, 19, 19n., 172; L. F. Sheffy, ed., "The Arrington Papers," *PPHR*, vol. I (1928), pp. 47-54.

⁹⁶ *Economist*, vol. XLII (1884), p. 197.

⁹⁷ Reginald Aldridge, *Ranch Notes in Kansas, Colorado, the Indian Territory, and Northern Texas* (London, 1884), pp. 1, 161, 169-177, 189, 206.

⁹⁸ *Ibid.*, p. 207.

healthy and legitimate basis."⁹⁹ He pointed to the approaching end of the free range, but stressed the fact that good ranches could still be bought. Although the U.S. government would sell only small tracts, the state of Texas could sell and had sold large tracts to both individuals and companies.¹⁰⁰

Perhaps it was because of this turn in the literature that 1884 showed an increase over 1883 in the number of companies created. Two companies were formed in March, although neither of them was to achieve any fame. The Texas Freehold Land Colonisation and Cattle Breeding Company was capitalized at £250,000 in shares of £5 each, half of which were issued at that time. It was announced that the company was "formed to purchase land and properties in the United States, stated to possess facilities for the cultivation of various crops, and pending their realisation it is proposed to conduct them as cattle ranches." Several properties were supposedly being offered to them.¹⁰¹ A week later the formation of the Consolidated Land and Cattle Company, Limited, was announced "to purchase several cattle ranches, comprising 100,000 acres in Texas, and to carry on the business of raising cattle and other livestock." There were to be 75,500 head of cattle plus the 1884 calf crop. The capital was to be £750,000 of which £500,000 were being offered immediately in shares of £5 each.¹⁰² Nothing more was heard of either of these two companies; perhaps they failed to attract buyers.

Of greater fame was the American Pastoral Company. It was organized sometime in 1884 to purchase the LX ranch from Texas ranchmen W. H. Bates and David T. Beal. There were 187,141 acres of land and between 36,000 and 45,000 head of cattle. The purchase price was £91,727.¹⁰³ The property was transferred to the company at the beginning of August, 1884, and in the following January, at the first general meeting, it was admitted that "the past season had not been favourable for the cattle business." However, the chairman stated that "he had confidence that the prices of the last two years would be at least maintained." The proposal was made that the capital of the company be increased from £300,000 to £400,000, half of the increase to be issued at once for the purpose of buying stock and increasing the herd to 50,000 head.¹⁰⁴

The Cresswell Ranch and Cattle Company, Limited, was organ-

⁹⁹ *Ibid.*, p. 208.

¹⁰⁰ *Ibid.*, pp. 212-213.

¹⁰¹ *Economist*, vol. XLII (1884), p. 364; *Investor's Monthly Manual*, vol. XIV (1884), p. 148.

¹⁰² *Economist*, vol. XLII (1884), p. 391.

¹⁰³ Margaret Sheers, "The LX Ranch of Texas," *PPHR*, vol. VI (1933), p. 53.

¹⁰⁴ *Times*, Jan. 28, 1885, p. 11.

ized through the efforts of John H. Maugham in October, 1884. The authorized capital was £320,000, with £280,000 worth of £5 shares to be issued at once. The property involved was the Cresswell Ranch founded by Henry W. Cresswell, an Englishman. Possibly because of mounting criticism of "book count," the cattle were actually to be counted. The ranch included 189,000 acres of "patented land" and some 40,000 head of cattle. Only half this number was found, however, at the time of counting and branding.¹⁰⁵

Sometime in 1884 a certain Major Ewing arrived in England from Texas and set about organizing the Cedar Valley Land and Cattle Company. In December capitalization was announced at £120,000, in £10 shares. By April, 1885, half of this amount had been called up. Major Ewing became the general agent of the company, which soon purchased the T-Anchor Ranch. The company came into outright ownership of 225 sections of land, plus several leases, and, supposedly, 24,000 head of stock. Because of the use of springtime hair brands and other dishonest methods, however, only about 8,000 head were delivered. Major Ewing and his foreman were replaced within the year, and we may only guess at the cause. The 1885 dividend was 10 per cent, but it was the only one ever paid.¹⁰⁶

The Espuela Land and Cattle Company, Limited, was created in December, 1884. The board included Alfred Markham Britton and S. W. Lomax of the Matador Cattle Company. On the board of directors were three members of the McNab family who were also connected with Matador. Its capital consisted of £200,000 of 10 per cent preference shares and £300,000 of ordinary shares, all of £5 each. All ordinary shares went to the vendor, the Espuela Land and Cattle Company of Fort Worth, which had purchased the property from the founder of the ranch, J. M. Hall.¹⁰⁷ The company was typical of the British companies in that one of its aims was to improve the stock by crossing it with "very fine shorthorn bulls."¹⁰⁸

One company, the Capitol Freehold Land and Investment Company, Limited, floated in England in 1885, was in many ways different from those previously described. As early as 1883 the *Times* reported

¹⁰⁵ Clay, *My Life on the Range*, pp. 101, 104-105; *Economist*, vol. XLII (1884), pp. 1,234, 1,266.

¹⁰⁶ Charles Boone McClure, "A History of Randall County and the T-Anchor Ranch" (unpublished M.A. Thesis, University of Texas, 1930), pp. 87, 67-69; *Economist*, vol. XLII (1884), p. 1,522; *Investor's Monthly Manual*, vol. XV (1885), p. 187; Sheffy, "British Pounds," p. 55; Rippey, "British Investments in Texas," p. 337. The sale price of the T-Anchor Ranch is reported by McClure (p. 67) as \$800,000, but, as this is higher than the total announced capitalization of the company, it is probably incorrect.

¹⁰⁷ William Curry Holden, *The Spur Ranch* (Boston, 1934), pp. 13-15; *Economist*, vol. XLII (1884), p. 1,522; *Investor's Monthly Manual*, vol. XIV (1884), p. 666; *Times*, Dec. 12, 1884, p. 11; *Taylor County News* (Abilene, Texas), April 17, 1885.

¹⁰⁸ *Ibid.*, June 19, 1885.

that a "London syndicate" had agreed to purchase 3,000,000 acres from a Chicago company that received the land in exchange for building the state capital at Austin.¹⁰⁰ The Chicago company — called the Capitol Syndicate and headed by John V. Farwell, of Chicago — found it necessary to organize a British company in order to raise capital in Europe for the venture. The Capitol Freehold Land and Investment Company borrowed money through the sale of 7 per cent debentures or bonds. This money was used to stock and improve the land, which was then leased to "responsible lessees," the Capitol Syndicate.¹¹⁰

A major difference between this company and the others was its basis in the ownership of land and its interest in land sales. At the general meeting held in October, 1885, the statement was made that "the company would enter into immediate ownership in fee of the freehold of 438,000 acres," and the whole 3,000,000 acres would be held in fee simple when the "Parliament House" was completed.¹¹¹ By 1888 the capitol had been completed, all 3,000,000 acres were in possession of the company, and a land-sales program had been launched.¹¹² Some land was disposed of in that year for \$5.00 an acre; by mid-1890 \$300 an acre had been realized on the sale of town lots in Texline, on the border of New Mexico. Immigration to the area was encouraged by the company, which announced that the tract would be attractive to farmers "with a fair amount of capital" because of the good climate and productiveness of the soil. Furthermore, since the land grant came directly from the state of Texas, property owners were in no danger from the antialien sentiment sweeping the country.¹¹³ The following year the town of Channing was founded on company property.¹¹⁴

At the beginning, the company estimated that the land could support 300,000 head of cattle. Approximately 65,000 head had been purchased by October, 1885; by 1886 the company owned 69,423 head and had contracted for 41,298 more. In 1888 the company sold 30,000 head "at fairly remunerative prices."¹¹⁵

Debenture capital of the company grew rapidly. A few months after organization, £400,000 of debentures were issued, the cash being used for stocking the ranch. In 1886 another £110,997 were subscribed, this amount to be used to pay for the land. By May,

¹⁰⁰ *Times*, April 7, 1883, p. 7; J. Evetts Haley, *The XIT Ranch of Texas, and the Early Days of the Llano Estacado* (2d ed.; Norman, Oklahoma, 1933), p. 72n.

¹¹⁰ *Ibid.*, pp. 71-72; *Times*, March 13, 1889, p. 12.

¹¹¹ *Ibid.*, Oct. 3, 1885, p. 11.

¹¹² *Ibid.*, Jan. 26, 1887, p. 11; March 13, 1889, p. 12.

¹¹³ *Ibid.*, June 9, 1890, p. 12.

¹¹⁴ *Ibid.*, June 5, 1891, p. 11.

¹¹⁵ *Ibid.*, Oct. 3, 1885, p. 11; Jan. 26, 1887, p. 11; March 13, 1889, p. 12.

1889, it was announced that £800,000 had already been issued in debentures and that another £200,000 subscription was open. This last amount was subscribed only slowly, for in June, 1891, the entire total had not been subscribed, although just a few pounds were lacking.¹¹⁶ The holders of these bonds, of course, received their annual 7 per cent return, regardless of the relative success of the company.

The chief authority on the XIT Ranch fails to report that the British company not only borrowed money, but also represented an investment of £2,000,000 in share capital.¹¹⁷ The expectations of these British stockholders were not entirely fulfilled. The report for 1886 stated that, although there was a net profit of £18,706, no dividends would be distributed "until the land has been fully stocked." The next year's report showed a profit of only £2,017, but the company's prospects were reported to be "most encouraging." For 1889 there was a profit of £7,114 and the following year ended with a profit of £8,213, but there were still no dividends. Finally, in 1892 the first dividend was announced — a paltry 2½ per cent.¹¹⁸ The shareholders never became rich on their investment and the company was liquidated after 25 years of existence.¹¹⁹ The fact that they were even able to preserve their capital was, no doubt, because of the company's primary devotion to colonization and land development.

In 1885 Walter Baron von Richtofen published a little book entitled *Cattle-Raising on the Plains of North America*¹²⁰ that served as an excellent reflection of the boom psychology that had infected British financial markets. Richtofen's glowing optimism, however, was misplaced, and by this time most writers knew it. The end of the boom was already obvious to those with insight. Even as early as the end of 1883, experienced cattlemen were becoming increasingly willing to sell their properties. Fortunately for them, many British companies were still willing to buy. In 1884 prices began to decline. The next year witnessed a steady sinking of prices, a rush to sell, and the inevitable crash. Thousands of cattlemen were ruined before they understood what was happening.¹²¹ The cattle compa-

¹¹⁶ *Ibid.*, Oct. 3, 1885, p. 11; March 13, 1889, p. 12; May 27, 1889, p. 11; June 9, 1890, p. 12; June 5, 1891, p. 11.

¹¹⁷ Haley, *The XIT Ranch of Texas*, p. 73; *Times*, Jan. 26, 1887, p. 11.

¹¹⁸ *Ibid.*; *ibid.*, Feb. 2, 1888, p. 11; June 9, 1890, p. 12; June 5, 1891, p. 11; Aug. 1, 1892, p. 8.

¹¹⁹ Rippy, "British Investments in Texas," p. 337, says the company was liquidated in 1918; Haley, *The XIT Ranch of Texas*, p. 73, says 1909.

¹²⁰ New York, 1885.

¹²¹ National Livestock Association, *Prose and Poetry of the Live-Stock Industry of the United States with Outline of the Origin and Ancient History of Our Live-Stock Animals* (3 vols.; Denver and Kansas City, 1904), vol. I, p. 673.

nies, lacking flexibility, fared much worse than the independent operators. The *Economist*, with characteristic British understatement, said that the results for 1885 had "not been satisfactory."¹²² By the end of 1885 dividends had begun to diminish and the boom was over. No more companies were to be floated in Great Britain for the purpose of carrying on the cattle ranch business, and those who had invested during the boom had immediate cause for regret.

The abrupt fall in prices derived from a common economic phenomenon — overproduction.¹²³ In addition, there was the adverse effect of weather. Severe winters in 1885–1886 and 1886–1887, together with the accompanying dry Southwestern summers, destroyed the hopes of many a company just as it seemed to be overcoming the handicaps of inexperience and inefficiency. The sale of bankrupt or retrenching firms and of ranches with overstocked ranges only served to weaken the cattle market still further. Once prices started down, ranchers became nervous and increased their sales in the hope of avoiding greater losses. The process could only lead to a further decrease in prices and further sales.¹²⁴

Not the least of the troubles besetting the cattle companies was the encroaching settlement by farmer and homesteader, depriving the cattlemen, section by section, of the much-advertised free grazing ground. Feeling was particularly strong against the foreign-owned ranching companies. Whereas in 1879 a letter in the *London Times* stressed the lack of antialien sentiment in the western portions of America, by 1885 another was describing the effects of the antialien territorial law passed by the national Congress. At the same time, however, it was still erroneously maintained that the states would pass no such legislation, since to them foreign capital was "the breath of life."¹²⁵ Needless to say, the British kept a steady and watchful eye on the movement.¹²⁶

¹²² *Economist*, vol. XLIV (1886), p. 365; see also *Investor's Monthly Manual*, vol. XVI (1886), p. 100.

¹²³ Harold E. Briggs, "The Development and Decline of Open Range Ranching in the Northwest," *MVHR*, vol. XX (1934), p. 530. The decline in prices is described by James Cox, *Historical and Biographical Record of the Cattle Industry and Cattlemen of Texas and Adjacent Territory* (St. Louis, 1895), p. 150.

¹²⁴ Firsthand accounts of these forces can be found in Cox, *Historical and Biographical Record*, pp. 129–140; *Economist*, vol. XLVI (1888), p. 595; W. M. F. Somerville to A. Mackay, Nov. 25, 1885. Typescript of the Correspondence of the General Manager, Book 1, Part I, p. 22, Correspondence of the Matador Land and Cattle Company, Limited, Archives of the University of Texas Library; Clay, *My Life on the Range*, pp. 141, 178, 180, 181; John Baumann, "On a Western Rancho," *Fortnightly*, vol. XLVII (1887), pp. 518–519. Also see Clements, "British Investments," p. 212; Rippey, "British Investments in Texas," p. 334; and Pearce, "History of Matador," pp. 50, 55, 76.

¹²⁵ Cf. *Times*, Nov. 19, 1879, p. 5 with Feb. 28, 1885, p. 4.

¹²⁶ *Economist*, vol. XLIV (1886), p. 863; vol. XLV (1887), p. 1,402; vol. XLVI (1888), p. 594; vol. LI (1893), p. 446; Great Britain. Foreign Office. *Diplomatic and Consular Reports on Trade and Finance*, Annual Series, 1891, No. 823, p. 4; 1892, No. 989, pp. 1–2, 6; 1893, No. 1164, p. 3. On degree of British press concern, consider these items in the *Times*: Aug. 11 (p. 9), Aug. 13 (p. 10), Aug. 15 (p. 3), Aug. 16 (p. 2), Aug. 17 (p. 6),

It is not particularly surprising that the British ranching companies lost money. Foolishness, carelessness, and inexperience combined with distance from the scene of operations and the inherent drawbacks of large corporate ownership to add their weight to the forces working against the foreign investors.¹²⁷ Moreover, the original property purchases frequently were tainted by false statements and dishonest dealings on the part of the vendors.¹²⁸ "An Englishman long resident in the United States" wrote to the *Times* in January, 1884, saying that "Englishmen possess here a reputation for gullibility superior to that of any other people."¹²⁹

We may well ask, in view of these risky ranch purchases, how it was that spectacular profits were at first claimed. The answer, as has been suggested, is that there were no real profits. A writer in 1887 explained that "for the first year or two . . . big dividends are paid by the evergreen device of emptying one pocket in order to fill the other, which means in cattle enterprise by including in the original purchase a disproportionate number of steers to be re-sold for dividend purposes."¹³⁰

Small wonder, then, that dividends suddenly disappeared and profits melted away. The following table indicates the degree to which seven leading companies suffered.¹³¹

COMPANY	PROFITS IN 1883	LOSSES TO THE END OF 1887
	(£)	(£)
Matador	15,118	none
Texas	20,664	83,174
Hansford	13,231	82,367
Prairie	59,013	4,491
Cattle Rancho	20,282	114,450
Pastoral		13,316
Western	31,478	14,707

1883; Dec. 13 (p. 5), 1884; Jan. 15 (p. 5), Jan. 23 (p. 5), Feb. 26 (p. 5), Aug. 22 (p. 9), 1885; March 10 (p. 5), Aug. 3 (p. 3), 1886; April 26 (p. 11), April 27 (p. 13), July 25 (p. 5), 1887; April 30 (p. 11), 1888. On the American point of view see *Taylor County News*, April 24 and May 8, 1885. See also Clements, "British Investments," pp. 211, 221; Rippey, "British Investments in Texas," pp. 334-335; Pearce, "History of Matador," p. 29.

¹²⁷ *Economist*, vol. XLVI (1888), p. 594; Clay, *My Life on the Range*, pp. 171-172; Baumann, "On a Western Rancho," pp. 518, 526. Baumann was a leading critic of absentee management, possibly because he failed to secure such a position himself after an apprenticeship as a cowboy in the Texas Panhandle; see [John Baumann], "The Cowboy at Home," *The Cornhill Magazine*, vol. VII (1886), p. 294.

¹²⁸ E.g., *Economist*, vol. XLVI (1888), p. 594.

¹²⁹ *Times*, Jan. 2, 1884, p. 2.

¹³⁰ Baumann, "On a Western Rancho," p. 518.

¹³¹ "Scottish Cattle Companies in the United States," *Dundee Advertiser*, Feb. 29, 1888, quoted in *Reports from the Consuls of the United States*, vol. XXVI (1888), No. 93, House Misc. Doc. 608, 50th Cong., 1st Sess. (1887-1888), vol. XXIII, p. 206.

After 1893 the British cattle companies were liquidated one by one. The end of the Prairie Cattle Company in 1920 left only one — the Matador — to carry on the tradition.¹³² Although that company lived for another 30 years, it too has left the scene to the historian.¹³³

So ended an era. A frequent theme of economic history ever since the South Sea Bubble was thus re-enacted, and once again it was the Scottish investor who had taken the brunt of the blow. But the long-range effects of the boom and the benefits conferred upon an underdeveloped area through the exploitation of pastoral possibilities can never be fully measured. The improvement of the breeds of cattle, the development of wire fences, the discovery that with fences there was also a need for barns and cut hay, the use of steel windmills and deep wells, these were the contributions of the European capitalist to western America, and, particularly to western Texas.

APPENDIX

DIVIDENDS OF SIX CATTLE RANCH COMPANIES

(Per cent per year including bonus)

Companies	1882	1883	1884	1885	1886	1887
Cattle Ranche						
Preferred Stock	..	15	10	None	None	None
Hansford	..	..	6	7	None	None
Matador	..	8	6	7	None	None
Prairie Cattle	19.5	27.625	20.5	10	10	None
Texas Land and Cattle	15	12.5	6	5	None	None
Western Land and Cattle						
Common Stock	..	..	15	25	10	5
Preferred Stock	..	..	5	5	5	5
Companies	1888	1889	1890	1891	1892	1893
Cattle Ranche						
Preferred Stock	None	None	None	None	None	None
Hansford	None	3	2.5	None	2.5	2.5
Matador	1.667	2.5	None	None	None	None
Prairie Cattle	None	None	None	None	None	None
Texas Land and Cattle	None	None	None	None	None	None
Western Land and Cattle						
Common Stock	None	None	Not listed	.....	.....	.....
Preferred Stock	None	None	Not listed	.....	.....	.....

SOURCE: *Investor's Monthly Manual*, vol. XIII (1883), pp. 630-631; vol. XIV (1884), pp. 634-635; vol. XV (1885), pp. 630-631; vol. XVI (1886), pp. 630-631; vol. XVII (1887), pp. 630-631; vol. XVIII (1888), pp. 630-631; vol. XIX (1889), pp. 634-635; vol. XX (1890), pp. 680-681; vol. XXI (1891), pp. 678-679; vol. XXII (1892), pp. 678-681; vol. XXIII (1893), pp. 676-677.

¹³² Rippey, "British Investments in Texas," p. 336.

¹³³ *Ibid.*, p. 338; *Dallas Morning News*, July 25, 1951, p. 1.



Early Bookkeeping and its Development into Accounting

■ The transition from simple record keeping to accounting more or less in the form we know it today took many hundreds of years, though most of the basic developments had occurred by early Renaissance times. The advance of the art was intimately linked with a growing literature, the advancement of status, and other recognizable signs of maturing professionalism.

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Because the studies of early bookkeeping and accountancy present particularly difficult problems of historiography, the subject literature has tended to consist of technical and specialized monographs, many of them monuments to conscientious research. In such a historical context, the need for a short and essentially nontechnical treatise is likely to go long unfilled. The present article attempts to trace the principal developments, each of which has been intensively studied for and of itself, whereby accountancy evolved out of

primitive record keeping practice to achieve a recognizable professional status.

Three main phases may be discerned, though the dividing point between each is blurred. Record keeping, the early stage, may be defined for the purposes of this article as the practice of inscribing and preserving documents as evidence to support a particular business transaction or the major transactions of a continuing business enterprise. Bookkeeping, the long-lived intermediate stage, may be said to consist of analyzing, classifying, and recording transactions, according to a preconceived plan, as the basis for reporting the financial condition and all operating results of a business enterprise. Accounting, the ultimate professional development, can be described as bookkeeping with additional refinements of financial summarization and a control function added.

The beginning of the whole evolutionary process, of course, lay in the necessity for satisfying a specific need. Record keeping had its origins in the institution of private property and owed its subsequent development both to the growing number and complexity of property transactions and to the creation of monetary systems.

Before the institution of private property, record keeping was probably necessary only in conjunction with the business of Church and State. The concept of private ownership was well established at a very early date, however, and was widely diffused and amply protected by the time of the city republics of Italy. The exchange of property between owners created a need for recording such changes and for providing a legal history of the transactions. In time, some owners entrusted property transactions to agents, and mercantile houses began to act on behalf of clients. This delegation of the transfer and record keeping processes gave rise to more specialized and sophisticated record keeping techniques.

The use of a monetary unit, serving as a common denominator for measuring the value of diverse goods and services, introduced the need for still greater record keeping specialization. The money lending function also was created and brought with it further necessities. With the advent of records kept in money terms, record keeping evolved into bookkeeping, the duties and responsibilities involved began to be delegated, and the vocation of bookkeeper was established. As transactions become more numerous and involved, and as the need increased for records that would have meaning to others besides the record keeper, greater skills were demanded. The specialized "expert" emerged. Businessmen unable to perform the function themselves or to afford the full-time services

of a bookkeeper consulted outside specialists. Gradually there evolved a corps of professionals that included bookkeepers with experience in several companies. This broadened experience, coupled with refined and somewhat standardized techniques, facilitated a better insight through records into business and financial transactions and hastened the transition from bookkeeping to accounting.

THE EARLY PERIOD

Little is known about the origins of record keeping, but it is possible to trace this function back at least to Babylonia and Assyria, where archeologists have unearthed ancient tablets that record transactions. Certainly credit for the origin cannot be given to any nation existing later than these.¹ The code of laws promulgated by Hammurabi, King of the First Dynasty of Babylon, about 2000 B.C., and believed to be the earliest in existence, contains references to two money lending firms.² In the code there is also documentary evidence of contracts, set forth in the code proviso: "If a man has given on deposit without elders or contract, and where he has given they contest it, there shall be no claim."³

The Chaldean-Babylonian Empire is considered to be the first regularly organized government in the world.⁴ Babylon was one of the chief commercial centers of the East, acquiring, during the reign of Nebuchadnezzar, a magnificence that rendered it the wonder of the world. Nineveh, capital of Assyria, and Babylon were referred to as the queens of commerce.

In this ancient civilization much of the business of administering the central government and that of the provinces was handled by scribes, who are the earliest known record keepers. These public officials appeared to have performed some functions of the barrister, the attorney, and the accountant, and were primarily responsible for tax collections and government disbursement.

Some taxes were paid into the treasury in kind. Where money was used, it could have been one of several types and most probably was not uniform in any case. The scribes maintained inventory records and prepared accounts similar to a charge-and-discharge statement showing amounts received and paid out. In some instances the record tablets show the reasons for transactions and

¹ C. W. Haskins, *Business Education and Accountancy* (New York, 1904), p. 186.

² Arthur H. Woolf, *A Short History of Accountants and Accountancy* (London, 1912), p. 20.

³ Wilmer L. Green, *History and Survey of Accountancy* (Brooklyn, 1930), p. 26.

⁴ Richard Brown, *A History of Accounting and Accountants* (Edinburgh and London, 1905), p. 16.

whether money or some type of commodity was the exchange medium involved.⁵ But, as Dr. Bridge of the British Museum has said: ⁶

There is no reason for thinking that they [the Babylonians and Assyrians] managed their money as we do. There are many contract tablets known, and hundreds of records of commercial transactions, but I know of none which could be considered as accounts in the modern sense of the word.

In Egypt, which boasts of a civilization only a little less venerable than that of Babylonia, the scribe also occupied a key position in government administration. He had to possess a knowledge of record keeping in order to handle tax collections and also wage disbursements to laborers. The qualifications of an Egyptian scribe included skill in reading, writing, arithmetic, and elementary book-keeping, together with a proficiency in wording the administrative formulas.⁷ His accounts, prepared on papyrus with a calamus, or feather quill, showed exactly how much was received, when and from whom received, and the details of how the material was used. Nothing was given out of the treasury without a written order. Safeguards against misappropriation of funds were provided by a system that required the records of one official to check out against those of another. Here we see the beginnings of those internal controls which characterize the developing profession of accountancy.

GREEK AND ROMAN CONTRIBUTIONS

As might be expected with the development of Mediterranean trade, evidence of record keeping next is found in the Grecian Empire. Brown makes the statement that "the public economy of the Athenians shows a highly developed system of accounting."⁸ This reference is no doubt to a system of record keeping suited to the needs of trade during this period, not to accounting in the present-day sense of the term.

The most important financial officer in Greece was the Treasurer or Manager of the Public Revenue. He seems to have served as the supervisor of the funds, including their collection and expenditure. Like other officers, the Treasurer or Manager of Public Revenue was subject to legal restraint and check, and to the will of the people. The administration was in the hands of the assembly, the legislative body, under which numerous boards and officials served. These boards reported to the assembly upon the funds due the

⁵ Woolf, *Short History of Accountants and Accountancy*, p. 6.

⁶ Brown, *History of Accounting*, p. 19.

⁷ Woolf, *Short History of Accountants and Accountancy*, p. 6.

⁸ Brown, *History of Accounting*, p. 33.

government and the funds paid out for services rendered. From the public accounts kept by the clerks, and controlled by the checking clerks, a reckoning was made at the expiration of every term of office.

Bookkeeping and record keeping under the Roman Republic reached a still higher degree of perfection. There is evidence that the records of the Republic were kept more accurately than those of the Babylonians and Egyptians. The Romans, of course, were noted for their administrative abilities. The system of keeping the state's accounts was based on that practiced in private life, where the head of the family kept separate registers or ledgers for his business transactions. Besides the registers, *Adversaria* and *Codex accepti et dispensi*, used by the father of the Roman family, the Roman bankers kept a third kind of register, called the book of accounts, or *liber rationum*. The banker was bound to render an account and, if asked, to produce an extract of the account before the praetor, who was a government official.⁹ This may have been the beginning of our present-day system of reporting to a third party. In any case, the records of the banker had to be adequate to stand a test in the magistrates' courts of the day.

In the central accounting office (*tabularium*) the work was carried on, under a superintendent, by bookkeepers (*tabulari*), the *approximi*, and the assistants. All expenditures had to be legally authorized and regularly ordered by a competent magistrate, and could only be discharged by the production of the formal order. This order was supported by documents proving the existence and liquidity of the debt, the title of the creditor, and the execution of work specified in the order.

Moreover, Brown states, every accounting official was required to render an account of his administration to a superior, while the chief minister was responsible directly to the emperor.¹⁰ The public treasurer had a staff of inspectors for the purpose of controlling the accounts of the receiver-general and of the accountants of the provinces and of the cities. The treasurer also supervised a staff of checkers, who carried out the same type of audit program in the tax collection offices.

MEDIEVAL DEVELOPMENTS

During the Dark Ages, the Roman system of accounting was swallowed up, along with much else of the highly developed cul-

⁹ Woolf, *Short History of Accounting and Accountancy*, p. 44.

¹⁰ Brown, *History of Accounting*, p. 39.

ture, by the invasion of the Barbarians. It remained for the Roman Church to preserve and improve existing techniques of receipt and expenditure bookkeeping.¹¹

In 812, Charlemagne issued his *capitulare de Villis*, an ordinance containing instructions for the administration of the imperial estates. It prescribed that accounts of income and expenditures should be kept and rendered. Every judex, or steward, on the Emperor's estates was required to report, giving an annual survey of the royal property, including inventory of lands and tabulations of rents, fines, farm produce, and so forth.¹² Estate income and disbursements were recorded in separate books, but not in anything like an account form as the term is used today. The transactions were recorded in a journal, more or less in essay form.

The best-preserved record of the methods used during the latter part of the Medieval period can be found in the Exchequers of England and Scotland. The oldest account that has been preserved is the English Pipe Roll of the year 1130-1131.¹³ This, too, can best be described as a narrative description of receipts and expenditures, rather than an account in the modern sense.

The striking changes in the life of Europe that commenced after the year 1000, however, provided the stimulus for major developments in bookkeeping. The manor and village gave way to the town, manufactures and craft specialization increased, trade grew and broadened, the guild system took root and flourished.¹⁴ This dynamic environment created new record keeping necessities.

ITALIAN DEVELOPMENTS TO 1600

Understandably enough, considering the history of Eastern commerce, the course of record keeping development in late-Medieval and early Renaissance times is traced in the rise of the great Italian trading centers.

During the latter part of the crusades, between 1000 and 1300, business was established on a new basis. This business was centered in the northern part of Italy along the routes taken by the crusaders, who were eager customers for oriental commodities. The brisk trade stimulated shipping, which was pursued on a much larger scale than it had ever been before. Venice, which at one time controlled the Mediterranean trade even more effectively than Great Britain dominated world commerce of the nineteenth century,

¹¹ Green, *History of Accountancy*, pp. 40-44.

¹² *Ibid.*, p. 44.

¹³ Clive Day, *A History of Commerce* (New York, 1938), p. 41.

¹⁴ Woolf, *Short History of Accountants and Accountancy*, p. 17.

was an early leader in banking and record keeping.¹⁵ To Venice, the instructor of Europe, came the sons of wealthy merchants for their education. The influence of this and other Italian maritime republics upon the development of accounting can scarcely be overstated.

The Italian trading centers developed the partnership contract to a remarkable degree of perfection. These contracts clearly stated the capital of the separate partners, made provisions for the division of profits and losses, clearly defined the rights and duties of each partner, and finally, provided for the dissolution of the enterprise. The vigorous and growing Florentine commerce of the thirteenth and fourteenth centuries was a particularly excellent climate for the development of bookkeeping. One important achievement of the commercial genius of Florentine merchants was the development of large associations and "compagnie" (partnership) units, which began with the pooling of capital within family groups and gradually developed to the point of admitting outside capital.¹⁶

Record keeping practice kept pace with commercial developments. Italian laws of the eleventh century required the scribes to render an account of goods on shipboard; in the thirteenth century, the Magistrate was required to render accounts every few months. These accountings given by the scribes and magistrates seem, however, to have been little more than a listing of inventories and the receipts and disbursements made during a given interval of time. Evidence of more advanced practice is found in the books of a Florentine banking organization in 1211. Here the depositor's account was debited on one page and credited on another. These early banking entries may signify the beginning of double entry bookkeeping, the term here signifying simply a specialized form of keeping accounts.¹⁷ A further advance can be traced in the books of a French company, the Freres Bonis of Montanban, which were kept during the years 1345 to 1359. This firm made a list of the debtors and creditors, recording the money owed to them and the money they owed.¹⁸

While improvements were being made in the art, its practitioners acquired legal status and respect. In Italy, the journal of a banker was generally considered a public record, which could not be contested in court.¹⁹ The importance of accountants in municipal

¹⁵ Day, *History of Commerce*, p. 90.

¹⁶ Edward Peragallo, *The Origin of Double Entry Bookkeeping* (New York, 1938), p. 18.

¹⁷ Raymond de Roover, "Lingering Influences of Medieval Practice," *Accounting Review*, vol. XVIII (April, 1943), p. 149.

¹⁸ Brown, *History of Accounting*, p. 96.

¹⁹ De Roover, "Lingering Influences of Medieval Practice," p. 149.

life is shown by the fact that as early as 1164 Milan had a set of General Regulations of Taxable Land compiled by accountants serving as independent representatives of the public. Today this would be considered the function of an attorney. The importance of the accountant in Italy in the latter part of the fifteenth century is further suggested by the fact that in 1484 Duke Gradaliasso Maria Visconti, of Milan, granted to Giocanni Longone, his accountant (whose responsibility it was to render an account of funds collected and the expenditures made), the legal right to confer upon his descendents the office of accountant of Milan.²⁰

REFINEMENT AND SPREADING OF THE ART

Toward the end of the fifteenth or the beginning of the sixteenth century, record keeping developed into bookkeeping as it is known today. Business had come to require a bookkeeper, who should maintain permanent financial records and an account of the assets and the revenues produced from those assets. As soon as a set of books was no longer regarded merely as a repository for detached notes, to be produced upon settlement between parties, the evolution of systematic bookkeeping had commenced.²¹ These first steps in the development were, as we have seen, very gradual. When accounts were prepared by one person for the use of another, improvements were made. The growth of commerce and the formation of partnerships and joint ventures led to even better bookkeeping procedures. Similarly, the increased volumes of transactions must have made bookkeepers look for a more orderly method of keeping their accounts. When the commercial enterpriser adapted to his requirements the record keeping methods of the banks and large trading concerns, modern double entry bookkeeping emerged.

The first record of a complete system of double entry bookkeeping is found in books of accounts of stewards at Genoa in 1340. Soranzo and Brothers, a firm of traders, in 1406 were not only keeping ledgers but also such accounts as "Profit and Loss" and "Capital." By 1482, the ledgers were being closed and profits calculated on an annual basis. Financial statements may well have been made during this period at irregular intervals, but if so they were probably on loose leaves of paper and hence subsequently lost.²² One can say that, from all indications, there was a fully

²⁰ Woolf, *Short History of Accountants and Accountancy*, p. 161.

²¹ Brown, *History of Accounting*, p. 96.

²² Raymond de Roover, "Characteristics of Bookkeeping Before Pacioli," *Accounting Review*, vol. XIII (June, 1938), p. 14.

developed system of bookkeeping by the end of the fifteenth century, though in most cases it stopped with a trial balance. There was still a great deal to be learned about balancing processes and analysis. This further knowledge seems to have evolved out of the basic framework provided by the "Method of Venice" that was functioning in the commercial centers of Italy, though by 1600 other countries were making important contributions of their own.

In Great Britain during the fourteenth, fifteenth, and sixteenth centuries the estates of the nobility were producing such large incomes that experts were required to prevent theft and the withholding of funds from the landlord. Heading the list of essential servants in the household of the nobleman were the steward, the comptroller, the surveyor, the receiver, and the auditor. If the estate was not large enough to employ all of these officers, there was usually a surveyor, a receiver, and an auditor, so that the work of accounting for funds could be separated from that of receiving and paying out the money.

The surveyor's task was to determine the amounts to be collected from rentals, while the receiver — the position of highest trust — was the treasurer and cashier of all the nobleman's funds. The auditor's work was primarily to determine whether each of the servants of the household had been faithful in his respective trust.

The audits were conducted once or twice a year at the pleasure of the lord of the estate. Frequently, once the auditor had started his work, he could not see any other member of the nobleman's official family, a safeguard instituted to guarantee an unbiased audit.²³

After the Auditor had performed his work he was required to hold the "declaration of audit." No doubt, the present-day professional auditor may trace his ancestry back to this period, inasmuch as many of the estates could not afford a full-time auditor, and hence there arose the need for a man who could serve as auditor for a number of the different lord's estates.

In these auditing practices by the lords of English estates may be discerned one of the beginnings of present-day public accounting.

There is, however, a great deal of dispute as to the point at which accounting emerged out of bookkeeping. The "limited liability" feature of joint-stock ventures in the late sixteenth and early seventeenth centuries certainly constitutes one milestone. These enterprises, of which the East India Company will serve as an

²³ C. Aubrey Smith, *Internal Audit Control* (Austin, Texas, 1933), p. 198.

example, were the forerunners of the present-day corporation. They obtained funds from a large group of people and represented the biggest business operation that had been undertaken in the commercial world to that time. In this type of organization the intact preservation of investments became an important issue, as evidenced in the latter part of the seventeenth century by the statement of the governors of the British East India Company that future distributions would consist of profits earned (dividends) and not return of investment, as in the past. This policy introduced the problem of determining the difference between income and invested capital. The responsibility of the accountant was increased as a result. An attendant necessity was for a quasi-closing of the books to determine income to date. By the time commercial enterprises had found it necessary to close their books for the purpose of systematically determining income, the growing and spreading functions of government had demanded equivalent improvements in techniques of handling the public accounts. It is in this era that bookkeeping evolved into the art or discipline of accountancy.

EDUCATION, ORGANIZATION, AND STATUS

After the discovery of the sea routes to India, commerce achieved unprecedented heights and the development of record keeping techniques was energized.²⁴ To meet this situation, it was necessary that an authoritative exposition of double entry bookkeeping systems be produced.

The discovery in the nineteenth century of a manuscript prepared by Benedetto Cortrugili, entitled "*Della Mercatura e del Mircanti Perfecto Della Mercatura*," has shed light on the origins of double entry bookkeeping. It is believed that this manuscript was completed in 1458, although its recorded appearance did not take place until 1573. It was in part the basis for the remarkable work of Pacioli, the Franciscan Monk, who in 1494 gave to the commercial world his memorable work on double entry bookkeeping entitled *Summa de Arithmetica, Geometria, Proportioni et Proportionalita*.²⁵ A mathematician by education, Pacioli was directly associated with business and commerce as tutor for the sons of an Italian merchant prince. In his celebrated work Pacioli only proposed to follow the "method of Venice." The object of bookkeeping is stated by Pacioli

²⁴ A. C. Littleton, *Accounting Evolution to 1900* (New York, 1933), p. 21.

²⁵ Green, *History of Accountancy*; A. C. Littleton, *The Development of Accounting Literature* (Chicago, n.d.), p. 8.

in precise terms: "to give the trader without delay information as to his assets and liabilities."²⁶ This treatise caused Pacioli to be looked upon as the grandfather of double entry bookkeeping. The principals he set forth are still followed and have undergone but few changes in the past 468 years.²⁷

With the foundation of bookkeeping laid, it remained for Pacioli's followers to enlarge and perfect the procedures; by the middle of the sixteenth century, writings on bookkeeping began to appear throughout the continent of Europe. In 1525 appeared a 24-page pamphlet on bookkeeping that was used in the commercial academies of the day. This publication was much better adapted than that of Pacioli for use in the classroom. The Italian writer, Tagliente, endeavored in 1526 to supply *pro forma* entries based upon the principles of Pacioli. In 1534, Dominico Mangoni published the treatise, *Iradervo doppio col suo giornale secondo il constume di Venetia*, which gave entries for the journal and ledger.²⁸

After 1600, Italian authors occupied a position of declining importance that reflected their country's lagging position in the march of commercial progress. Under the leadership of the Dutch, the British, the Spanish, and the Portuguese, the Atlantic came alive. Dutch authors are of particular interest because Holland was the training school of the merchants of Britain.

The first native Dutch writer to deal with the subject of bookkeeping was Jan Ympyn Christoffels, whose treatise was published in French in 1543 and in English in 1547. He introduced the trial balance, as such, for the first time. Then, in 1588, Nicholaus Petrie, also of Holland, published the bookkeeping treatise in which the compound entry was first introduced.²⁹ Simon Stevin of Holland published his *Hypomnemata Mathematica* in 1605. Stevin separated the ledger and inaugurated the practice of keeping the cash account, expense account, and so forth, in subsidiary ledgers. He also introduced the practice of balancing the profit and loss account at the end of each year, using the account itself, rather than a formal statement, to reflect the profit.

In England, as far as is known, Italian bookkeeping had been introduced through Hugh Oldcastle's translation of Pacioli's works in 1543. Several years later an original English treatise by James Peele appeared. This dealt more clearly than preceding treatises with the profit and loss and the capital accounts. For a time after

²⁶ Peragallo, *Origin of Double Entry Bookkeeping*, p. 55.

²⁷ Littleton, *Accounting Evolution to 1900*, p. 4.

²⁸ Brown, *History of Accounting*, p. 177.

²⁹ Woolf, *Short History of Accountants and Accountancy*, p. 131.

the introduction of Italian works in England, British authors quite naturally reflected Italian practices in their writing. However, Richard Dafforne's *Merchant's Mirrour*, a notable contribution to British bookkeeping that was published in 1636, was designed to teach merchants to pattern their business after the merchants of Holland, who were known for their practice of keeping exact accounts. This publication must have served the needs of business well, because later editions of the work appeared in the United States.

In 1741, John Mair, of Edinburgh, published a text, *Bookkeeping Methodg'd*, which was well received and became a standard work for the next several years. In Ireland, in 1776, Daniel Dowling attempted a definitive work called *A Complete System of Italian Bookkeeping According to the Modern Method*. This volume was revised by William Jackson in Dublin in 1792.³⁰ To this list of significant studies should be added Dr. Patrick Kelley's, *The Elements of Bookkeeping* (London, 1801), and James Morrison's *A Complete Treatise on Practical Bookkeeping* (Scotland, 1803). The influence of these English-language texts was wide; they formed the basis for bookkeeping instruction in the United States.³¹

Quite clearly, the nature and volume of literature was one indication that record keeping had evolved from a minor necessity to the status of a major professional art. Other evidence testifying to the maturity of accountancy in early Renaissance times is not lacking.

When the New Bank of St. Ambrose was founded in Milan, in 1593, the management was entrusted to an accountant. This would suggest that the accountant of that day possessed a wide knowledge of the business activity of the community. Further evidence that the accountants had reached a high level of esteem in the Renaissance business world is shown by the fact that those records authenticated by accountants were accepted as decisive by the parties concerned.³² This could indicate that the accountant was acting in an independent capacity and that his fairness in rendering opinions in disputed matters was recognized. While obviously not acting in the full capacity of today's independent auditor, he was surely performing some of the functions.

With increased emphasis being placed on bookkeeping during the last quarter of the sixteenth century, it is not surprising to find that the first association of accountants of which there is record, the

³⁰ H. C. Bentley, *A Brief Treatise on the History and Development of Accounting* (Boston, 1929), p. 13.

³¹ *Ibid.*

³² Brown, *History of Accounting*, p. 177.

Collegio dei Raxonati, was founded in Venice in 1581.³³ The college became so powerful that no one could exercise the functions of an accountant, either in connection with public administration or the law, unless he was a member of the college. The requirements of admission were stringent, especially with respect to apprenticeship. Each candidate who desired to become an accountant had to obtain from a magistrate a certificate of moral fitness. He then had to serve as apprentice in the office of a public accountant, as they had come to be called, for a period of six years. Apprenticeship usually commenced between the ages of eighteen and twenty-four, the latter age being the legal minimum at which admission could be obtained. Before being eligible for examination, the candidate had to submit a certificate stating that he met all legal requirements. Along with this he had to furnish a certificate from the accountant under whom he had served his apprenticeship.

Eventually, the need for formal educational facilities became apparent. In 1739, a college was established under the influence of the practicing accountants of Milan, received the approval of the governing body of the city in 1741, and was opened in 1745. It was decreed that only graduates of the school should be legally recognized as practicing accountants. The rules for admission to the college specified a familiarity with economics, commerce, and public affairs, a complete knowledge of Latin and arithmetic, a five-year apprenticeship, the attainment of the age of twenty-five years, and an examination in the science of accounting.³⁴ Unlike the state-sponsored *Collegio dei Raxonati* in Venice, the Milan college was entirely a private institution.

These various developments in status, education, and literature must be viewed in context—part cause and part effect of the remarkable technical transitions from record keeping to bookkeeping and then to accounting. We may note with justifiable surprise how early these transitions occurred and how highly developed was the state of professionalization. There is even, indeed, reason to suspect that early practice was more advanced than we have hitherto supposed. The more one delves into the past, the more modern it appears to be.³⁵

³³ *Ibid.*

³⁴ *Ibid.*, p. 178.

³⁵ De Roover, "Characteristics of Bookkeeping Before Pacioli," p. 144.



American Accounting Education, Textbooks and Public Practice Prior to 1900

Some later observers, impressed perhaps by rapid progress of the art after 1900, showed disdain for nineteenth-century methods. Five principal factors, however, produced a steady evolution and made accounting an element of importance in the nineteenth-century American business world.

by Roy J. Sampson

ASSISTANT PROFESSOR OF TRANSPORTATION
AT UNIVERSITY OF OREGON

An observer writing shortly after the beginning of the twentieth century took a dim view of American accounting up to that time, saying, "The profession of Accountant has hitherto been little known and little understood in America."¹ An examination of the

¹ Richard Brown, C.A., ed., *A History of Accounting and Accountants* (Edinburgh, 1905), p. 278.

pertinent literature, however, does not completely support this statement.

American bookkeeping during the colonial period, of course, was similar to the bookkeeping then practiced in England. It was learned from private instructors or by apprenticeship.² Such textbooks as were used came from Britain.³ It appears likely that most colonial planters and businessmen of any consequence kept at least some simple accounts of their various transactions. For example, General George Washington maintained detailed accounts of his own and his wife's expenses during the Revolution.⁴ Due to the English mercantile system, which caused America to be viewed as a source of raw materials and an outlet for British manufactured goods, however, business organization was such that many of the books recording colonial trade transactions were kept in England, and many of those kept in the colonies were handled by men sent out from English home offices. Also, leading American colonial merchants frequently were part-time smugglers who operated more outside than inside the law, and thus were not inclined to leave permanent records where they might be found by the King's officers. Despite these circumstances, however, it is worthy of note that the public schools organized in Boston in 1682 included bookkeeping among the subjects to be taught.⁵

In 1754 William Weston, a Londoner who described himself as being "Some years a practitioner in Real Business, and now Master of the French School, in Queen-Street, near the Seven Dials," wrote a book for young Englishmen who were going to America to become plantation managers or factors.⁶ This book contains about 260 pages, approximately equally divided between explanations and illustrations of various books of account. Weston recommended use of Waste Book, Journal, and Ledger, with a Sales Book and an Invoice Book if needed. The Waste Book first lists all possessions, then debts, and then transactions as they occur. The first Journal entry is a debit to Stock and a credit to Sundry Accounts for the inventory, and the second is a debit to Sundry Accounts and a credit to Stock for the debts. Debits and credits were kept on facing Ledger pages, and the fraction system was used in the Journal to indicate to which page of the Ledger an

² Wilmer L. Green, LL.B., *History and Survey of Accountancy* (Brooklyn, 1930), p. 181.

³ *Ibid.*, p. 132.

⁴ *Ibid.*, pp. 131-132.

⁵ *Ibid.*, p. 181.

⁶ William Weston, *The Complete Merchants Clerk: Or, British and American Counting-House* (London, 1754).

entry was posted. Books were to be balanced once per year, and were to be proved by adding all the debit entries and all the credit entries in the Ledger. Weston apparently did not believe in unnecessary accounts. For example, instead of opening an Interest Account, he suggested crediting Profit and Loss immediately upon the receipt of interest.

One of the first important colonial public accounting engagements of which a record remains occurred in 1748, when Benjamin Franklin employed James Parker to act for him in settling his Philadelphia printing business.⁷ Parker was not an accountant, however, and it was some 100 years later before America had full-time Public Accountants. There was one such full-time practitioner in Boston by 1847,⁸ and one in Los Angeles by 1852.⁹ There may have been others, although Public Accountants before the mid-nineteenth century usually were teachers, lawyers, merchants, or persons of similar trades.¹⁰ The first American public accounting partnership to use a regular firm name apparently was organized in Cincinnati in 1876.¹¹

The first American accounting textbook appears to have been written by William Mitchell, of Philadelphia, in 1796. Mitchell's title page, which is reproduced in Green's history, says in part:¹²

A New and Complete System of Book-keeping, by an Improved Method of Double Entry; Adapted to Retail, Domestic and Foreign Trade; Exhibiting a Variety of Transactions which Usually Occur in Business . . . to Which is Added a Table of the Duties Payable on Goods, Wares, and Merchandise, Imported into the United States of America. The Whole in Dollars and Cents.

Probably the second American accounting textbook was written in 1804 by Thomas Turner, a Maine teacher.¹³ This little book contains 148 pages, and shows a set of books for an individual proprietorship and for a partnership, with brief explanations. It also includes a section on decimals and one on interest calculations, as well as a method for transferring dollars into pounds. The primary books described are the Waste Book, Journal, Ledger, and Cash Book. Subsidiary books are described for invoices, sales on account, and accounts current. Small bills are to be paid from cash in the till and posted once per month. Monthly balancing is recom-

⁷ American Institute of Accountants, *Fiftieth Anniversary Celebration* (New York, 1937), p. 104. Hereinafter this publication will be referred to as A.I.A.

⁸ Brown, *History of Accounting*, p. 271.

⁹ A.I.A., p. 107.

¹⁰ *Ibid.*, p. 106.

¹¹ *Ibid.*, p. 108.

¹² Green, *History of Accountancy*, p. 138.

¹³ Thomas Turner, *An Epitome of Book-Keeping By Double Entry* (Portland, 1804).

mended, with new books being opened by reversing entries. Turner outlines methods for teaching from his book, and says that any senior school boy can within a few months "obtain a foundation in the principles, and a perfect knowledge of method, in opening, conducting, adjusting and closing books."

Bookkeeping and arithmetic were closely connected in early American education. Charles Hutton wrote a book on arithmetic and bookkeeping, in England, which was published in 1809 in an American edition.¹⁴ Out of a total of 236 pages, 32 pages are devoted to single entry and 63 to double entry bookkeeping. Hutton justifies the inclusion of the single entry method by saying, "The Italian method alone is not sufficient; for it is a constant complaint among the merchants, and others, who use this method, that their boys, having learned only the Italian method, when they first come to business, are almost as ignorant in the management of their books, as if they had never learned any method at all."

Hutton recommends a Waste Book, Journal, and Ledger for double entry bookkeeping. The Ledger is to be ruled down the center of the page with the titles of accounts in the center, and accounts are to be arranged alphabetically. His instructions for the monthly closing are: Total both sides of all accounts, and balance the difference by an entry to the Profit and Loss Account if it is in the nature of a gain or loss, or to the Balance Account if it is a stock account; then close the Profit and Loss Account into the Stock Account and the Stock Account into the Balance Account. The new month's Waste Book is to be made up from the Ledger Balances. Hutton says of his system, "This method is so easy, that it may also be taught in a few weeks time to young ladies as well as to young gentlemen."

Another American textbook was written in 1818 by B. Sheys, who describes himself as an accountant.¹⁵ Out of a total of 340 pages, Sheys devotes about 60 pages to explanations and theory and the remainder to examples of various books of account. The three main books described are the Waste Book, Journal, and Ledger, with about a dozen subsidiary books to be used if needed. Sheys distinguishes between three kinds of accounts, as follows: Real, consisting of property; Personal, consisting of persons with whom one deals; and Fictitious, which are "invented accounts" such as Profit and Loss, Interest, etc. He discusses compound entries and petty cash. Although it is correct to post directly from subsidiary books, he says, it is better to go through the Journal to prevent errors. Commenting

¹⁴ Charles Hutton, LL.D., F. R., *A Complete Treatise on Practical Arithmetic and Book-Keeping, Both by Single and Double Entry* (New York, 1809).

¹⁵ B. Sheys, *The American Book-Keeper* (New York, 1818).

on the teaching of bookkeeping, Sheys says "this invaluable branch of education is almost totally neglected." A further comment by Sheys has a familiar ring to modern ears. He says, "if the instructors of youth were to receive a proper compensation for their trouble, very few scholars would leave school unqualified for business."

A well-organized and well-written bookkeeping text was written in 1837 by B. F. Foster.¹⁶ Although Foster has been accused of copying his accounting theory from the English author Cronhelm,¹⁷ this does not alter the fact that his book stands well above previous American treatises on the subject. Foster's book contains about 200 pages, divided approximately as follows: 6 pages defining commercial expressions; 8 pages explaining equation of payments; 6 pages of bookkeeping history, which mention Chinese, Greek, and Roman accounting, as well as the works of Pacioli, Gottlieb, Oldcastle, Stevin, and about 10 English authors of the eighteenth and early nineteenth centuries; about 50 pages of explanation and theory; and 125 pages devoted to examples of various kinds of books.

Foster conducted the New York Commercial Academy, which taught bookkeeping, commercial arithmetic, penmanship, and letter writing. In his opinion, most of the schools of the day placed too much emphasis on the copying of entries and did not give enough attention to explanation.

The basic theory of double entry, according to Foster, is "that the whole is equal to the sum of its parts. . . . Hence, there must . . . be a constant equality between the Stock Account and all the other accounts." He classifies accounts into Stock, Money, Merchandise, and Personal categories, and says, "The division of accounts into Personal, Real, and Fictitious, is one of the most ludicrous that ever enlivened the gravity of the scientific page."

Foster does not use the Waste Book. His primary books are the Journal and the Ledger, with subsidiary books for Cash, Bills, Invoices, Shipments, and Account Sales, with a Day Book for everything not included in one of these. He recommends putting all accounts of the same type in the same part of the Ledger, and says that when books are balanced the values of goods on hand should be shown at present prices instead of at cost. Also, on balancing books, he states that "A merchant, before estimating his profits, ought to charge interest on each investment."

A distinctly modern note is evident in the various publications of

¹⁶ B. F. Foster, *A Concise Treatise on Commercial Book-Keeping* (2d ed.; Boston, 1837).

¹⁷ A. C. Littleton, Ph.D., C.P.A. *Accounting Evolution to 1900* (New York, 1933), pp. 167, 181.

Thomas Jones, a mid-nineteenth-century New York teacher. This is especially true in his 1850 textbook.¹⁸ This 200-page book, although poorly organized, analyzes a large number of individual transactions and accounts. Jones classified accounts as Primary and Secondary. Among Primary accounts he includes Cash, Bills Receivable, Bills Payable, and Personal Accounts. With the addition of the merchandise inventory, these accounts provide a complete picture of resources and liabilities. Secondary accounts include Stock, Merchandise, Charges, Interest, Bank Stock, and Profit and Loss. This group, with the exception of Stock, shows gains or losses.

Jones also distinguishes between earned profits, as customarily shown to include book debts, and realized profits, which already are in hand in the form of cash or its equivalent. He recommends a reserve, which he calls Contingent Fund, to absorb bad debt losses. Next year's debt losses on this year's business are to be charged to this Contingent Fund, rather than to Profit and Loss. An estimate of the proper size of this reserve should be made at the end of each year, he says. In the opinion of Professor Littleton, Jones was one of the first American accounting writers who "strived to replace rules by logic."¹⁹

The latter half of the nineteenth century is noteworthy for the absence of good books on accounting. The rapid growth of railroads and other types of large corporations was inaugurating the age of modern accounting, but this development is better reflected in court decisions and the proceedings of railroad regulatory bodies than in textbooks. There was considerable opposition to the teaching of commercial subjects in secondary schools. Consequently, private business schools developed rapidly between 1840 and 1890.²⁰ Most accounting textbooks written during these years were authored by instructors at these private schools, and most of them are little more than drill manuals which attempt to teach by rules and repetition.

One of the better texts written during this period was by P. Duff.²¹ First published in 1867, it went through 20 editions by 1871. The author, who had been head of Duff's Mercantile College for 27 years, illustrated a journal with several ruled columns for different accounts. Most of the 400-page book is devoted to examples of five sets of books as used by merchants, manufacturers, private banks, and railroads. There is very little theory, very brief explanations, and an

¹⁸ Thomas Jones, *Book-Keeping and Accountanship, Elementary and Practical* (New York, 1850).

¹⁹ Littleton, *Accounting Evolution to 1900*, p. 178.

²⁰ Green, *History of Accountancy*, pp. 183-184.

²¹ P. Duff, *Duff's Book-Keeping, By Single and Double Entry* (20th ed.; New York, 1871).

abundance of questions, answers, and rules. Although depreciation reserves are not mentioned for railroad accounting, a Surplus Capital Account is shown for use in creating a reserve fund to enable dividends to be paid even when business is unfavorable.

In 1882, an Institute of Accountants and Bookkeepers was organized in New York.²² This organization, which was primarily an educational and scientific body, however, apparently did little to advance professional accounting.

Six or seven New York accountants, in 1886, decided to form a society similar to the British Institute of Chartered Accountants. They incorporated in New York in 1887 as the American Association of Public Accountants, and adopted bylaws and elected officers in 1888.²³ At its first annual meeting, this Association had 25 Fellows and 7 Associates.²⁴ This little body eventually grew into the American Institute of Accountants, which was incorporated under Federal Charter in 1916.²⁵

The American Association took an active interest in making public accounting respectable. At the time of its formation, the employment of a public accountant usually was an indication of suspected fraud or financial weakness, and outside audits often were made in the secrecy of night.²⁶ Organized pressure got the first Certified Public Accountancy law passed in New York in 1896. Similar laws were passed by Pennsylvania in 1899, Maryland in 1900, and California in 1901.²⁷ Other states followed rapidly. Also, in 1894 the Association formulated rules for presenting balance sheet items "in order of quickest realization," and restricted advertising by its members.²⁸

A competent historian of accountancy has pointed out that "America . . . was the first country which recognized the necessity for giving Accountancy an established place in the University curriculum."²⁹ General Robert E. Lee planned a business school for Washington and Lee University, but nothing was done toward establishing it after the General's death in 1870.³⁰ The University of Pennsylvania, in 1881, established a school of business which now is the Wharton School.³¹ In 1893, a School of Accounts was sponsored by the American Association, under the jurisdiction of New York University, but

²² Green, *History of Accountancy*, p. 74.

²³ *Ibid.*, p. 75.

²⁴ Brown, *History of Accounting*, p. 271.

²⁵ Green, *History of Accountancy*, p. 75.

²⁶ A.I.A., p. 80.

²⁷ Brown, *History of Accounting*, pp. 272-273.

²⁸ A.I.A., p. 6.

²⁹ Arthur H. Woolf, M. A., *A Short History of Accountants and Accountancy* (London, 1912), p. 188.

³⁰ Green, *History of Accountancy*, p. 185.

³¹ A.I.A., p. 111.

it failed due to neglect by the university and businessmen.³² Five years later, the universities of Chicago and California started departments of business, and in 1900 they were followed by the universities of New York, Dartmouth, Vermont, and Wisconsin.³³

The Interstate Commerce Commission, and similar state regulatory commissions, by persuasion, regulation, and the prescribing of uniform railroad accounts, did a great deal toward stabilizing accounting practices and procedures during the latter part of the nineteenth century.³⁴

As indicated by the dates shown below, most of the common business machines, which have had such an important impact upon the development of accounting records and practices, were first used during the latter quarter of the nineteenth century.³⁵ Remington-Rand marketed the first usable typewriter in 1874. The Burroughs adding machine was invented in 1884 and patented in 1888. The National Cash Register Company produced the first workable cash register in 1884. The comptometer was patented in 1886, the tabulating machine in 1889, and the addressograph was first manufactured in 1893. Thus, by the end of the century, the ages-old methods of handwritten records were being superseded by mechanical methods which provided much more information for a much less expenditure of effort.

In conclusion, then, it appears from this review of the literature, that American accounting, as distinguished from English accounting and its European ancestors, was an element of some importance in the nineteenth-century business world. Evolution in accounting education and practice proceeded more or less steadily throughout the period. Among the significant factors influencing this evolution during the latter part of the century, which led directly into modern accounting, one must list the organization of railroads and other large-scale corporate enterprises, the establishment of public regulatory commissions, the work of professional accounting associations, the adding of accountancy to university curricula, and the development of a wide variety of office machines.

³² *Ibid.*, p. 5.

³³ *Ibid.*, p. 111.

³⁴ *Ibid.*, p. 140.

³⁵ *Ibid.*, pp. 463-466.



Sir George Touche, Bart., C.A. 1861-1935

A Memoir

¶ *The career of this influential accountant illuminates, with colorful Victorian overtones, the beginnings of the investment trust movement and the heyday of British international investment.*

by Mary E. Murphy

PROFESSOR OF BUSINESS ADMINISTRATION
AT LOS ANGELES STATE COLLEGE

George Alexander Touche was one of a group of Scottish Chartered Accountants who made their way across the Tweed and helped advance professional accountancy in London.¹ His career had several unique features. These included the establishment of one of the oldest public accounting firms in the United States and Canada, and affiliation with a South American professional partnership. Another interesting facet of his life was his active participa-

¹ The writer wishes to express appreciation to Mr. G. L. C. Touche, F.C.A. London, for his helpful comments on this sketch of his father.

tion in the investment trust movement in the United Kingdom and, through investments, in the development of the British Commonwealth and the North American Continent. On behalf of British investors in American industrial securities, Touche visited the United States on a number of occasions. Finally, he wrote verse, privately printing and circulating his poems to his family and friends.

Touche was born on May 24, 1861, in Edinburgh, the son of a banker. He was educated at Bonnington Academy, Edinburgh Institution (now Melville College), and Edinburgh University. In 1883 Touche was admitted to membership in the Society of Accountants in Edinburgh. A Scottish Chartered Accountant, in addition to passing all the subjects required by the English professional societies, had also to complete examinations in actuarial science and political economy. It is recorded that Touche's paper in actuarial science was given a 100 per cent rating.

The Touche family consisted of four sons and three daughters, and there was not much money. Young George went to London to seek his fortune in the financial capital of the world. There he embarked on a fourfold career in investment trusts, accountancy, the civil life of the City of London, and national politics. He possessed the assets of ambition, a great capacity for prolonged and concentrated work, and a lively imagination. In London he was first employed by Broads, Paterson and May, Chartered Accountants, and was fortunate enough to uncover a fraud on his first auditing engagement.

Touche was well qualified for the accounting profession in London. He had served his apprenticeship under Alexander T. Niven (1829-1918), Chartered Accountant of Edinburgh, with whose son he was destined to establish a lifelong partnership. Niven had a long career in practice in Scotland, sometimes in partnership and sometimes as a sole practitioner. He was one of the seven gentlemen who formed the Society of Accountants in Edinburgh in 1854 (amalgamated with the other Scottish accounting societies into The Institute of Chartered Accountants of Scotland in 1951). This Society, which was incorporated under Royal Charter given at Her Majesty's Court at St. James' on October 23, 1854, and signed by Lord Palmerston at Her Majesty's Command, recited, in the Latin of the Court, that the duties of an accountant in Scotland required "great experience in business, very considerable knowledge of the law and other qualifications which can only be attained by a liberal education."² It was the first organized body of public accountants in the world.

² Richard Brown, *A History of Accounting and Accountants* (Edinburgh, 1905), pp. 220-232. Also see *A History of the Chartered Accountants of Scotland from the Earliest Times to 1954* (Edinburgh; The Institute of Chartered Accountants of Scotland, 1954).

On June 4, 1887, Touche married; he had four sons, and lived to see his six grandchildren. He formed the public accounting firm of George A. Touche & Co. of London and Birmingham in June, 1898, and later in Canada. With John Ballantine Niven (1871-1954), Alexander Niven's son, he formed another partnership - Touche, Niven & Co. (now merged in Touche, Ross, Bailey & Smart) - which maintained offices in various cities in the United States.

John B. Niven, mentioned above, had been admitted to the Edinburgh Society in 1893 and remained on his father's staff until the end of 1897, when he came to America and served in the Chicago office of Price Waterhouse & Co. until February, 1900.³ He was President of The American Institute of Accountants (predecessor body to The American Institute of Certified Public Accountants) in 1924-1925.

At an early date, Touche had associated with him, as partners in the London firm, Andrew W. Tait, who had been apprenticed to Alexander Niven, and Gilbert Taylor, who retired in 1905. In 1917, Touche was knighted and three years later he became a Baronet. He was active in politics and was a strong advocate of tariff reform. He served as M.P. for North Islington from 1910 to 1918. In addition, he was a Lieutenant and Alderman of the City of London and Sheriff for the year 1915-1916. Touche was a Governor of the Royal Northern Hospital and of Queen Anne's Bounty. The Order of St. Sava was granted to him by Serbia.

INVESTMENT TRUSTS

From 1870 to 1890 a number of Scottish and English financiers experimented with a new device, the investment company. The initial success of a Scot, Robert Fleming, who formed the Scottish American Investment Co. in 1873, was emulated by other members of the financial community. An investment company boom occurred in 1888 and 1889.⁴ From a total of 15 such companies, with a nominal capital of £9.5 million in 1888, their numbers had risen to 19, with a capital of £25 million by April, 1889. The Treasury inadvertently contributed to this boom by its conversion of consols from 3 per cent to 2½ per cent, a move which released funds to search for higher interest rates.

Beginning in 1886 investment trusts were quoted on the London Stock Exchange, and their funds were widely invested in North and South America, the Colonies, South Africa, and the Far East. In Britain these companies aided individual promoters, promising in

³ *The Accountants' Magazine*, Dec., 1924, pp. 653-655.

⁴ *The Economist*, issues of July 21, 1888, and April 6, 1889, contained several references to the rise of the investment company in British finance.

advance to take shares in their flotations and arranging underwriting agreements for them. Although domestic companies received their share of new capital, much of the promotion and investment of the 10 years preceding the Baring crisis was on capital export account.

By 1930 there were more than 200 British investment trusts with an "aggregate paid-in capital well in excess of £319 million derived from the issuance of debentures, preferred and common stocks in approximate ratios of 40, 35 and 25%, respectively. . . . For 71 companies, whose reports permitted such comparative surveys, the geographical distribution of holdings was as follows: British Empire (excluding Canada) 45%; Continental Europe 18%; Latin America 16%; U.S. and Canada 14%; other countries 7%." ⁵ These trusts came under the Companies Acts relative to provisions for audit and publication of financial statements.

Touche's first connection with investment trusts appears to have been his appointment, in 1889, as Secretary of the Industrial and General Trust, which had just been formed. The investment trust movement was in its initial stages of development and had not outlined the principles which govern it today. Capital gains were confused with income, and disreputable practices were common.

In 1890 the Baring crisis hit the stock market, and some investment trusts were nearly wrecked in the following six years. Baring Brothers had been established in London in 1717 by a Bremen wool merchant. The firm entered the field of international finance, maintaining close connections with Hope & Co. of Amsterdam, and actively competing with the Rothschilds for loans to South America. With the falling prices of the 1870's and 1880's and the default of the Argentine government, Barings was placed in a desperate position, so grave in November, 1890, that an appeal had to be directed to the Bank of England. The crisis, in retrospect, is seen to have emphasized that future flotations for foreign governments and companies had to be reviewed with particular dispassion, for the age had passed when unlimited credit could be found in London financial circles.

Investment trusts came under severe criticism from the British public. In the case of the Industrial and General Trust, an investigation committee was appointed and a demand for an official inquiry by the Board of Trade was narrowly defeated. In 1894 the capital of this Trust was reduced by 60 per cent on account of losses. Touche was appointed manager, and he worked to place the trust on a successful operating basis. He became a Director of the Trust in 1898 and Chairman in 1908.

⁵ *Encyclopaedia of the Social Sciences* (New York, 1932), vol. VIII, pp. 280-281.

Another investment trust, The Trustees Executors and Securities Corporation (now The Trustees Corporation), also, had difficulty at the same period and suffered a reduction of capital. Touche was appointed a Director and Chairman in 1901; he remained in the capacity of Chairman until his death.

Gradually the prosperity of the trusts was restored. Aided by a great financial flair and a personal integrity which was above suspicion, Touche and other leaders of the time, including Robert Fleming, evolved the sound principles on which trust companies operate today. In the process, they won for these companies the high financial standing which investment trusts, generally, now enjoy.

Touche's success in this field led to his services being sought by other trust companies. At the time of his death, in 1935, he was a Director of the following trust companies and Chairman of the first nine:

Cedar Investment Trust
City National Investment Trust
Continental Union Trust
Debenture Corporation
Industrial and General Trust
Second Industrial Trust
Sphere Investment Trust
Trust Union
Trustees Corporation
Atlas Electric and General Trust
Sterling Trust

These firms formed one of the principal groups of investment trusts in the City of London. They continued to flourish in the years following Touche's death, meeting the challenge of two world wars and great changes in the British family of nations. In his lifetime, Touche was also Chairman of the Anglo-Argentine Tramways Company, which operated the transport system of the City of Buenos Aires, and of the Midland Railway Company of Western Australia and the Mexican Southern Railway.⁶ Touche was never "a 'bear' on the British Empire, and his group invested in Great Britain and the Dominions beyond what was usual, with remarkable success."⁷ It is regrettable that so little time was available to him to acquaint others with his wide experience in the investment trust field. His published

⁶ The Anglo-Argentine Tramways Company was capitalized at £30 million. There was a considerable British investment in the debenture and preference shares with the ordinary shares owned by Sofina, a large Belgian finance group. In the 1930's, the transport system owned by the company was nationalized and no payment was ever made to shareholders.

⁷ Obituary notice on Sir George Touche, *The Accountants' Magazine*, Aug., 1935, pp. 493-495.

works are available in *The Accountant*, in certain issues from 1904 to 1906, in which he discusses accountants' investigations in connection with the flotation and consolidation of businesses under the Companies Acts, reconstructions, and receiverships.⁸

One of Touche's talents was the reconstruction of companies. He preferred to reconstruct, rather than to liquidate, financially embarrassed ventures. The papers mentioned above refer to some of his experiences but provide only a limited view of his range of activities. Another talent was oratory. The company meetings he chaired were anticipated by a large number of serious investors for his lucid discussions of financial matters. Not only did he refer to his philosophy of investment trust company administration and technique, but in his role as Director of many companies, in which his group of trusts was interested, he gave wise counsel on general business matters during some trying periods of British finance.

ACCOUNTING PRACTICE

At the turn of the century, Britain was the largest creditor nation. Her capital was invested in all parts of the world, not only in the Empire but in North and South America. Thus, the growth of business enterprise in these and other areas of the world was fostered by the London financial market. Investment trusts were leaders in discovering overseas investment opportunities. They contributed materially to the consolidation of Britain's financial supremacy by aggregating the resources of numerous small investors for purposes of capital export.

Through their investments, potential or actual, financial investigations by Chartered Accountants became essential. Touche paid many visits to the United States, Canada, and South America for the purpose of examining possible and existing investments for his investment trusts and for other British investors. Because of his impeccable financial reputation, he was called upon to advise on the finance and reconstruction of large companies both at home and abroad. To handle this work, Touche founded his own accounting firm of George A. Touche & Co. in England in 1898. In this he was shortly joined by Andrew Wilson Tait, another able Scottish accountant. Tait became a Director of several industrial companies and was the Receiver for the British Aluminium Company, eventually guiding it back to prosperity. Other partners followed in the Touche firm and these gave their full attention to the accounting practice.

⁸ See *The Accountant*, May 21, 1904, pp. 691-704; March 24, 1905, pp. 381-384; March 31, 1905, pp. 412-420; and Sept. 22, 1906, pp. 329-333.

Among the early clients of the firm were The General Electric Company Ltd. and Balfour Beatty Ltd. (now part of Power Securities Corporation). These two companies, which rose to industrial leadership, are still clients of the firm, now known as Touche, Ross, Bailey & Smart.

It will be recalled that the firm of Touche, Niven & Co. was formed in the United States in 1900 by George A. Touche and John Ballantine Niven. Niven was a man of established reputation. Under his leadership, the firm expanded and became an important unit of the American accounting profession.

In 1910 a firm was formed in conjunction with Deloitte, Plender, Griffiths & Co. It was known as Deloitte, Plender, Touche & Co. It maintained an office in Java to serve the rubber plantation companies then being formed with British capital. The demand for men during World War I made it impossible to staff this office, and it was closed permanently in 1914.

The firm of George A. Touche & Co. opened offices in 1911 in Canada. In 1919 it acquired the business of Webb, Read & Co. Within a few years, offices were functioning in most of the principal cities of Canada.

In 1914 the firm of Touche, Faller & Co. was formed in Buenos Aires in conjunction with Albert Faller. However, the attraction of the Argentine as a field for British capital declined after the First World War, and it became apparent that there was insufficient work to support the offices of several British accounting partnerships. Accordingly, in 1921, the Argentine practices of Price Waterhouse & Co., Peat, Marwick, Mitchell & Co., and Touche, Faller & Co. were combined under the name of Price Waterhouse, Faller & Co. In November, 1935, the name of the firm was altered to Price Waterhouse, Peat & Co. Recently the three Touche firms in England, the United States, and Canada have amalgamated with other accounting organizations and now form part of the group of accounting firms known as Touche, Ross, Bailey & Smart.

TOUCHE IN THE CITY OF LONDON

The words, "The City," have always conveyed a picture of London's financial district, reviving memories of Threadneedle and Lombard Streets, the Bank of England, Lloyds, and the Stock Exchange. This compact center, aptly likened by Disraeli to a nation, financed the Empire and, indeed, the world at the height of the Victorian era. Then the financial power of "The City" surged round the globe at

the very moment when Britain was "the forge of the world, the world's carrier, the world's ship-builder, the world's banker, the world's workshop, the world's clearing house, the world's *entrepot*."⁹ Britain was organized on the basis of a world economy long before America discovered the way to a national system.

Actually, the City of London covers only one square mile and is distinct from the City of Westminster which adjoins it and the Metropolitan Boroughs which surround them both. Its historic buildings still in use, such as the Tower of London (1080 forward), the Guildhall (c. 1420), St. Paul's Cathedral (1675-1710), and the other churches built by Sir Christopher Wren, are a constant reminder of the City's ancient traditions, among which is its constitution.

Individuals who spend their working lives in the City develop a loyalty and affection for its dignified traditions. Touche was no exception. He was a member of the Livery of the Goldsmiths Company, which still performs at its Hall the ancient customs of testing newly minted coins at the annual Trial of the Pyx and applying the hall-mark to silver articles ("hall-mark" means the mark of the Goldsmiths' Hall). His second son was later to become Prime Warden (chief officer) of the company.

Touche became an Alderman in 1915, and served as Sheriff from 1915 to 1916. Unfortunately, a breakdown in health obliged him to forego his claim to election, in his term, as Lord Mayor of London.

NATIONAL POLITICS

For many years from 1900 forward, Touche was active in national affairs. A brilliant public speaker, he had a pleasant, well-modulated and resonant voice. He was especially effective when speaking before a hostile audience, where his wide knowledge of the facts, geniality of manner and power of repartee won approval even from his political enemies. On one occasion, at an open-air meeting in Hyde Park, two members of the crowd were heard to remark that "they liked the sandy-whiskered old devil the best."

Touche was a staunch Conservative, a great admirer of Joseph Chamberlain and a supporter of the policy of Tariff Reform. He unsuccessfully contested North-East Lanarkshire, at a by-election, in 1904, at a period when the Conservative Party was unpopular. He entered Parliament six years later by capturing North Islington from the Liberals.

When Touche was elected a Member of Parliament, this post was

⁹ L. C. A. Knowles, *The Industrial and Commercial Revolution in Great Britain during the Nineteenth Century* (London, 1930), p. 138.

held in higher esteem than it is today. When he returned home to the small Surrey village where he lived, he was met at its outskirts by a deputation of the strongest men of the village, all carrying ropes. They considered that the village had been honored by Touche's election to Parliament. Having fortified the "inner man," they made the chauffeur stop the engine of the 1907 Wolseley-Siddeley car and attempted to tow it the rest of the way. The first part of the journey was downhill; this was covered in fine style but the last 200 yards were uphill, with a gradient of 1 in 6 and some sharp bends. At this point the local heroes called in reinforcements before they could accomplish the task. Touche, who had little mechanical knowledge, enjoyed every moment of his ride but his chauffeur needed some weeks to recover his nerve.

In Parliament, Touche was noted for his lucid discussions of financial matters. He was a member of the Speaker's Conference on Electoral Reform in 1915 and 1916, but was obliged by ill health to refrain from contesting his seat at the General Election in 1918. Only his third son has followed him in the political arena. This is Sir Gordon Touche who is now Chairman of Ways and Means (Deputy Speaker) of the House of Commons and a member of Her Majesty's Privy Council.

PERSONALITY

Touche was a big man, and his appearance in his later years was impressive and patriarchal. He had a pink and white complexion and a large bushy beard. At first, this beard was red, later sandy, and finally white. In later years, the fluctuating color of Touche's beard was an indication of the state of his health, and one member of the family referred to it as "the baronet's barometric beard"! He was frequently mistaken for George Bernard Shaw.

He was usually jovial and humorous. He had great intellectual ability, yet he was seen as a man of deep feeling. He was generous and courteous to everyone, winning the loyalty, respect, and love of his many friends.

From his early years he loved literature and acquired a remarkable command of language, expressing his thoughts with happy facility both in prose and poetry. Many of his letters were small masterpieces, giving pleasure to the recipients and wielding a considerable influence among his business acquaintances, political constituents, and friends. He loved nature, especially birds, and found full scope in the beautiful surroundings of his Surrey home.

Long days in the City of London followed by late sittings in the House of Commons, combined with worry over the health of his wife, who died in 1917, eventually led to heart disease and arthritis. In the last few years of his life he suffered much sleeplessness and, during such nights, he wrote poems. One of them follows:

Sing me a Song of Life,
Strenuous, strong and free!
Sing of the vigorous joy of strife,
Fierce as the raging sea!
Tempest and storm and flood, Fling back
the glad refrain!
For Youth is strong
And Life is long,
And Joy o'ermasters Pain!

Sing me a Song of Love,
Tender and pure and true;
Sing of the dear delights that move
Fond hearts the whole world through!
Glories of earth and sky, Sing through the
golden hours,
And tell that Love
Is throned above,
And fills the land with flowers!

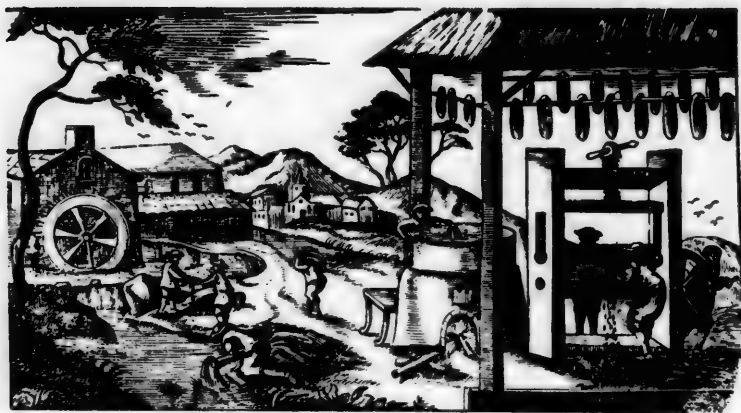
Sing me a Song of Death,
Tremulous, soft and low;
Of poor pale lips through which the breath
Of life no more may go!
Stars of the silent night, Thine endless
vigils keep!
The life of man is but a span,
And Grief is lost in Sleep.

Sir David Maxwell Fyfe, K.C., M.P., speaking at the 32nd dinner of the Association of Chartered Accountants in London in 1949, referred to three qualities possessed by Scots as "a sense of history in which the past is alive and present, whether it be serious or humorous, enabling them to interpret the present; a capacity for approaching things free from any preception or shibboleth; and, most important of all, they are usually credited with being 'thrifty, douce, canny, careful and all the rest'." These qualities, perhaps, may be related to Sir George Touche who did everything in his power to cherish and ornament the accounting profession to which he owed loyal allegiance.

In an obituary notice, Sir George was referred to as one of the

fathers of the City of London. More than that, he was the wise counselor of his investment trusts in their placement of funds in many corners of the world. His accounting firms still bear his name in London, Canada, and the United States. Touche's tradition lives on in these firms and in the investment trusts which function in the City of London.





1716 woodcut in the Kress Collection depicting papermaking

The Kress Library Of Business and Economics

« This monograph is another in a bibliographical series designed to call attention to accessible major repositories of business history source materials, describing both the basic collections and recent acquisitions.¹

by *Dorothea D. Reeves*

ASSISTANT CURATOR

KRESS LIBRARY OF BUSINESS AND ECONOMICS
AT HARVARD GRADUATE SCHOOL OF
BUSINESS ADMINISTRATION

The Kress Library was established by the gift of the late Claude Washington Kress, for 12 years the president of S. H. Kress and Company, to implement his belief that the experience of the past would give the businessman of the present perspective and help in solving his problems. As the basis of the Library, Mr. Kress made possible the purchase of an outstanding collection of early economic literature formed by Herbert Somerton Fox-

¹ See also: Bolino, "The Vatican Film Library" (Winter 1957 issue); Reeves, "The Jost Amman Print" (Summer 1959 issue); Daniella, "Studies in Enterprise" 1958 (Summer 1959 issue), and 1959 (Summer 1960 issue); Lovett, "Business Manuscripts at Baker Library" (Autumn 1960 issue); Reeves, "Sixteenth-Century Writings on Bookkeeping" (Autumn 1960 issue).

well, a zealous bibliographer and collector in this field, and a professor of Economics at St. John's College, Cambridge University, England. In 1938, about 10 years after the present Baker Library was completed, the Kress Library was formally opened in quarters appropriate to the books that were placed on its shelves. Its predominately pre-1850 collection provided an intramural supplement to Baker Library's great resources of nineteenth- and twentieth-century business and economic literature. It was this fifteenth- to mid-nineteenth-century material that a former dean, Wallace B. Donham, termed the historical basis of contemporary economic thought, essential for any study of the "roots" of American business.

From its inception in the mid-1930's, the Kress Library was the special concern and interest of Dr. Arthur H. Cole, the Librarian of Baker Library, a scholar and an expert in economic and business literature. Through his efforts, continuing until and even after his retirement in 1956, the original collection was augmented, strengthened, and diversified. Early books and pamphlets on economic theory and business were transferred from other Harvard libraries, making Kress the repository for rare books in these areas for the University as a whole. Homer B. Vanderblue, a former member of the Faculty of the Harvard Business School, gave his collection of works by and about Adam Smith; Mrs. Hugh Bancroft, widow of the Boston newspaper publisher, presented her husband's collection of books and pamphlets about the South Sea Company. Two large collections were added by purchase, the Wallich Collection of German business and economic literature and a collection of over 500 broadsides brought together by an early eighteenth-century English merchant engaged in the East India trade, Sir Richard Gough. To these valuable group accessions numerous individual purchases, as well as some valuable and welcome gifts, have been added during the past 22 years.

In 1939 a brochure about the Kress Library and H. S. Foxwell initiated a series of pamphlets, now numbering 15, about significant subject areas in the Kress Library's collections or about individual works of special importance. A Catalogue of the Kress Library has been published in two volumes covering material through 1776 and from 1777 to 1817, plus a supplement covering publications through 1776, each volume in a chronological arrangement, with an index. The Kress Library also sponsored a research monograph, *Gresham on Foreign Exchange, an Essay on Early English Mercantilism with the Text of Sir Thomas Gresham's Memorandum: For the Understanding of the Exchange, 1576*, by Raymond de

Roover, published in 1949 by the Harvard University Press. This is based on a manuscript, once part of John Dee's library and originally ascribed to him. Dr. Cole edited the publications of the Kress Library and, in a few cases, wrote them himself. After Dr. Cole's retirement, Barry E. Supple, formerly a member of the Harvard Business School Faculty and presently a member of the faculty at McGill University, became the editor of this series. Acquisitions became the joint responsibility of Mr. Laurence J. Kipp, the Associate Librarian of Baker Library, and of the author of this article.

Through the years, scholars have come to the Kress Library from widely scattered areas of the world to work in what the late Joseph A. Schumpeter described as "a scholar's paradise." The Library is open Monday through Friday from nine to five, except on legal holidays. The collection is noncirculating but photographic reproductions are available at moderate cost.

The inquiring scholar who comes to Kress will find one of the Western world's great collections in the field of historical economics and business.² Here, 30,000 volumes, most of them published before 1850 in Western Europe and North America, reveal the development of economic ideas and the evolution of economic life and institutions; the history of commerce, money, banking and public finance; the economic aspects of agriculture, manufacturing, and transportation.

Since economics was not considered as a separate subject before Adam Smith published the *Wealth of Nations* in 1776, some of the books earlier than that date contain a mere fragment of economic theory or are, as Dr. Cole has said, "around the periphery of economics." Thus, works about religion, politics, and the like are found in the collection because of their inclusion of a single segment on business. The writings of important authors and public figures range from the earliest work in the Library, a book of sermons on economic subjects by a popular thirteenth-century preacher, San Bernardino of Siena, published in 1474, to the works of Ricardo, Mill, and other classic economists of the nineteenth century. Interspersed with these, since the arrangement of the Library is chronological, are the published contributions of minor figures of their day. Preserved here are such works as a currency scheme set forth from the seclusion of his country library by an irate English nobleman, a contribution to physiocratic thought penned by a provincial French idealist, the anxious protest of

² The other two comparable collections are the Goldsmiths' Library of the University of London and the Seligman Collection of Columbia University (represented by author cards in the Kress card catalogue).

small-town merchants grouped to protect their interests, the financial panacea of a minor German official, the agricultural experiments of an American colonist. A series of pamphlets may represent the output on a currently raging controversy, such as a proposed change in the tariff rate; it may reflect the impact of technological developments on labor, or an awakening business conscience. Some of these pamphlets or broadsides are especially rare because, once read, they were not considered worth preserving. In some cases the Kress Library possesses the only known surviving copy.

The brief descriptions that follow give pertinent details about major collections and list a sampling of the additional material that has been obtained during the past five years. The subject arrangement is necessarily arbitrary.



The Pleasant Art of MONEY CATCHING

Frontispiece



R.M. Whilst others Plots against the State are hatching
My Study is, the Art of MONEY CAT'CHING

P.M. And I, poor I, by sad Experience know,
That want of MONEY brings a deal of Woe,

- London, Printed by John Lever at little Moorgate next London
wall near Moorfields.

The Vanderblue Collection of Smithiana

This collection of writings by and about Adam Smith was nearly complete when the late Homer B. Vanderblue gave it to the Kress Library in 1937, but new editions of Adam Smith's *Wealth of Nations* continue to be published. Copies of Polish, Turkish, Egyptian, and Italian editions have been added recently, as have a number of contemporary critical articles. There are now editions in 14 languages.

This tremendous diversity creates many opportunities for research. For example, it is interesting to compare the turn that various translators have given to the meaning of the Adam Smith text by their choice of words. One might, for instance, contrast the edition of 1802-1806 published in Tsarist Russia with the Soviet edition of 1931, or with the Polish edition of 1954, with its lengthy preface replete with references to Karl Marx. The comprehensive collection of critical works, including articles in periodicals and biographical writings, increases the scope of possible research projects based on the Vanderblue Collection.

Representative Accessions of the Past Five Years

WILLIAM HAMILTON. *Poems on Several Occasions*. Glasgow, 1748. 148 pp.

Adam Smith collected, edited, and helped to publish this book of poems to assist the cause of a banished compatriot. Smith is thought to have written the preface; this may be his first published writing.

ADAM SMITH. *An Early Draft of the Wealth of Nations*. 1763? 24 l.

A microfilm of a manuscript owned by the Duke of Buccleuch, whose ancestor, the Duke, was Adam Smith's pupil. It is in the handwriting of Smith's secretary, with corrections by the author.

ADAM SMITH. *Fragment sur les Colonies en Général, et sur Celles des Anglois en Particulier*. . . . Lausanne, 1778, 170 pp.

Only two years after the first English edition of the *Wealth of Nations*, this first French translation was published in Switzerland. While this included only one chapter (Book IV, Chapter VII), two other French translations, each of the complete work, were published in 1778-1779.

ADAM SMITH. *Acuția Națiunilor o Cercetare Asupra Naturii și Cauzelor ei. Din Englezeste de Al. Hallunga*. . . . București, 1934-1938. 5 parts in 4 vols.

It seems probable that we must be content with microfilm copies of these Dutch and Romanian editions of the *Wealth of Nations*. These are the only important editions that the Collection now lacks.

The Bancroft Collection

This is an assemblage of books and pamphlets about the South Sea Company, the inflation of its stock, the bursting of the bubble, and the aftermath. The British Museum has a larger number of items but they are scattered among its vast holdings.

The South Sea Company was chartered by the British government in 1711, incorporating the holders of government obligations and granting them exclusive commercial privileges. Increased government support, the maneuvers of the

directors, and rumors of extraordinary profit encouraged the public to speculate wildly until the stock went up to one thousand pounds for every one hundred subscribed. Then this major "bubble" burst, along with many minor "bubbles" blown up in the speculative fever of the period. A spate of pamphlets and broadsides was published. These pointed accusing and often satirical fingers at the guilty, advanced nostrums, and angled for a share of the sad remains.

Representative Accessions of the Past Five Years

ELIZAPHAN SHEMAJAH. *A Letter to the Patriots of Change-Alley*. . . . London, 1720. 23 pp.

A satirical inditement of an infected public in which everyone had been bitten by the bug of speculation.

Flying Post. Thursday April 7, to Saturday April 9, 1720. London 2 pp.

A timely issue of the *Flying Post*, a London newspaper, featuring an article: "Calculations Shewing the Value of Each Hundred Pound Capital South-Sea-Stock, by Their Present Agreement with the Government," that gives a careful summary of the financial condition of the Company and reaction to the debate over a bill to increase its capital stock (passed the day this issue of the *Flying Post* was published). It ends "The writers . . . were employed either by the Bank, or by the Annuitants; unless their Case is the same as the Fox in the Fable when he had lost his Tail."

To the Honourable the Commons of Great Britain in Parliament Assembled, is Humbly Offer'd, a State of South-Sea Stock, and a Means to Restore Credit. [London? 1721?] 3 pp.

The anonymous author of this pamphlet recommends an issue of a million pounds in exchequer bills, to be legal tender, but without paying interest, to relieve the financial crisis.

The Case of the Annuitants, and of the Several Interests of the South-Sea Proprietors, Compared and Examined London, 1721. 27 pp.

This account of the mismanagement by the directors of the South Sea Company's affairs, shows how the interest of the various groups of citizens involved should be protected in the financial settlement following its collapse.

A State of the Case Between the South-Sea Company, and the Proprietors of the Redeemable Debts [London, 1721?] 7 pp.

Complains that the owners of annuities were tricked into exchanging them for stock, and appeals to Parliament not to allow them to be "cheated by the South Sea Company of two thirds of their Estates by a Trick purely to make up the Losses of such as have been Gaming away theirs."

Agriculture

The Kress Library was well endowed with material about this basic industry by the Foxwell Collection. Acquisitions have been selected for their emphasis on the economic rather than the technological aspects of agriculture.

Representative Accessions of the Past Five Years

[JACOB FAGGOT] *Svenska Landtbrukets Hinder Ock Ajälp*. Stockholm, 1746. 104 pp.

The title of this famous pamphlet may be translated as: the obstruction to Sweden's agriculture and its remedy. In this pamphlet Faggot, head of the government bureau of surveying and champion of economic progress, first raised the question of enclosures (for Sweden). The first edition.

JAMES ANDERSON. *Essays Relating to Agriculture and Rural Affairs*. 5th ed. London, 1800. 3 vols.

A piece that adds another major work to our collection of writings by this gentleman-farmer-economist who did much to improve Scotch agriculture and who actually invented the "Ricardian" theory of rent.

JACOB ERNST VON REIDER. *Die Landwirthschaftlichen Verhältnisse Berechnet für das Königreich Batern. Ein Unentbehrliches Hülf-und Handbuch . . .* Hersbruck, 1819. 164 pp.

A treatise on the administration of agricultural estates for increased efficiency and productivity. Statistical studies are included such as the man, woman, and horse hours required for specific operations.

Banking

The Kress Library holdings are particularly rich in material dealing with the founding of the Bank of England in 1694 and the projects that preceded this event. Pamphlets and broadsides acquired with the Gough Collection added to coverage of this period of English banking.

Representative Accessions of the Past Five Years

The Mystery of the New Fashioned Goldsmiths or Bankers. Their Rise, Growth, State, and Decay, Discovered in a Merchant's Letter to a Country Gent. Who Desired to Bind His Son Apprentice to a Goldsmith. 1676. 8 pp.

This pamphlet fixes the date, approximately 1645, "at which English goldsmiths extended their operations, from trading in money and the precious metals to a regular system of private banking."

CONTE EMMANUELE TESAURO, *Istoria della venerabile Compagnia della fede cattolica sotto l'invocazione di San Paolo nell' augusta città di Torino . . .* 2d ed. accresciuta. Torino, 1701. 2 parts in 1 vol.

An account of a religious organization that included a pawnshop among its charitable activities. This "mont de piété" in time assumed banking activities and became one of the greatest banks of modern Italy.

DOUGLAS, HERON, AND CO. *The Precipitation and Fall of Mess. Douglas, Heron, and Company, Late Bankers in Air, With the Causes of Their Distress and Ruin, Investigated and Considered, by a Committee of Inquiry, Appointed by the Proprietors.* Edinburgh, 1778. 167, 133, 31, 34 pp.

A circumstantial report of a famous bankruptcy that influenced eighteenth-century American banking thought and that Adam Smith discussed in the *Wealth of Nations*.

DANSKE OG NORSKE SPECIES-BANKE. *Convention for den Danske og Norske Species-Banke.* Kiöbenhavn [1794]. 27 pp.

Banking practice in eighteenth-century Scandinavia.

Bookkeeping

One of the Kress Library's special treasures is the first edition, 1494, of Luca Pacioli's treatise on double entry bookkeeping, the first description in print of a method that had been practiced in Italy since the mid-fourteenth century. The books that have been added in the past five years have made our collection more representative and diversified so that one may now trace, step by step, the developments in both single and double entry bookkeeping and their application to different types of business. These texts supplement the manuscript account books in the Manuscript Division of Baker Library, representing many countries and many business sources, such as the fifteenth-century Medici business records, the account books kept by a London goldsmith in the 1690's, and early American business records.

Representative Accessions of the Past Five Years

HEINRICH SCHREIBER. *Ayn New Kunstlich Buech*. Nürnberg, 1518? 124 l.

The first work on bookkeeping to be published in Germany; the method given is by single entry.

WOLFFGANG SCHWEICKER. *Zwifach Buchhalten, sampt seinẽ Giornal des selben Beschlus auch Rechnung zuthun*. . . . Nürnberg, 1549. 128 pp.

This treatise introduced the double entry method to Germany. (See *Business History Review*, Autumn 1960, pp. 327-334.)

CHRISTOFFELS JAN YMPYN. *A Notable and Very Excellente Woorke, Expressyng and Declaryng the Maner and Forme How to Kepe a Boke of Accõptes or Reconynges*. . . . *Translated with Greate Diligence out of the Italian Tounge into Dutche, and out of Dutche, into French, and Now out of Frenche into Englishe*. London, 1547. 37 pp.

The first English adaptation of Pacioli's treatise. A microfilm of the only known copy, in the Lenin State Library at Moscow.

JOHANNES BUINCHA. *Oprecht Fondament ende principalen Inhout van het Italiaens Boeck-houden*. Amsterdam, 1647. 102 pp.

Includes a manual of instructions to be followed by the clerks of the Nederlandsche Oost-Indische Compagnie in keeping their books.

ALEXANDER TROTTER. *A Method of Farm Book-keeping*. Edinburgh, 1825. 95 pp.

The author illustrates his book with abstracts from the account books he kept to show the cost of building up each field in a farm "scourged . . . wrought to the bone by the outgoing tenant."

General Business

These citations from the past five years' acquisitions provide a sampling of the scope and variety of the Kress Library's resources in a broad and important field.

COMPAGNIA DELLA LESINA. *Capitoli da osservarsi inviolabilmente da tutti i confrati della venerabile Compagnia della Lesina*. Florence [ca. 1580]. 40 pp.

The earliest printed edition of the history and regulations of the famous Italian cobbler's guild.

Almanach Général des Marchands, Négocians et Armateurs de la France, de l'Europe & des Autres Parties du Monde. Paris, 1785. 683 pp.

Even very small French villages are included in this useful compendium that specifies industries and products, listing individual firms and merchants. Detailed business information is given for large cities, including a few important commercial centers outside of France.

Observations, &c. as to the Ages of Persons Employed in the Cotton Mills, in Manchester. Manchester, 1819. 72 pp.

A report, shocking by modern standards, of child labor in the cotton factories, with extracts from the evidence taken before committees of the House of Lords on a Bill passed in 1818 to restrict the hours of labor in cotton mills for children under sixteen to 12½ hours a day, and to prevent the employment of children under nine.

[ASA GREENE.] *The Perils of Pearl Street, Including a Taste of the Dangers of Wall Street, by a Late Merchant.* New York, 1834. 232 pp.

A lively, entertaining account of business life in New York City.

The American Mines; Shewing Their Importance, in a National Point of View: with the Progress and Present Position of the Real Del Monte Company; and Cursory Remarks on Other Similar Undertakings in South America. London, 1834. 35 pp.

A general statement of mining conditions in the New World, with particulars about the Real del Monte Company, its holdings in Mexico, its financial condition and prospects, reinforced with extracts from the company's reports.

HUGH MILLER. *Memoir of William Forsyth, Esq., a Scotch Merchant of the Eighteenth Century.* London, 1839. 133 pp.

Although there are numerous contemporary biographies of political figures who were engaged in public finance or other activities of a business nature and many recent biographies of early men of business, contemporary biographies of businessmen are few. This energetic Scotsman, who lived from 1722 to 1800, was engaged in the manufacture of linen and of iron implements, in the linen trade, the kelp trade, and other enterprises.

Commerce

The shelves of the Kress Library are well supplied with material on this basic subject, covering many aspects both practical, such as a directory of manufacturers and their products, and theoretical, such as the much-debated question of monopoly versus free trade.

Representative Accessions of the Past Five Years

JOHN PERRY. *Regulation for Seamen Wherein a Method is Humbly Proposed, Whereby Their Majesties Fleet May at all Times be Speedily and Effectually Mann'd, and the Merchants be More Readily and Cheaper Sero'd, Without Having Their Men at any Time Press'd or Taken Away . . .* London, 1695. 48 pp.

Proposes uniform wages for seamen and registries in every port to keep track of individuals when on land and produce them when needed to fill a crew.

An Effectual Remedy Totally to Prevent Smuggling, and Bring into the Revenue 195,000 Pounds Yearly London, 1756. 48 pp.

A sprightly account of smuggling into England. "Tea," insists the author, "is itself, the very Vitals and Soul of Smuggling: Remedy that Article, and every other Branch will molder away."

JACQUES ACCARIAS DE SÉRIENNE. *Le Commerce de la Hollande, ou Tableau du Commerce des Hollandois dans les Quatre Parties du Monde* Amsterdam, 1768. 3 vols.

The first edition of a treatise that was subsequently translated into Dutch and German. It includes a critique of Holland's economic policy.

JOHANN AUGUST ERNESTI. *Vermischte Aufsätze zur Erläuterung der Geschichte der Natur und des Blühenden Zustands der Handlung* Frankfurt and Leipzig, 1776. 276 pp.

Contains a historical essay on commerce from *Dissertationum Miscellanarum* by Biagio Garofalo, published in 1718, and three short theoretical pieces written by Ernesti in 1737 and 1764.

KUHN & Co. *Observations Upon the Commerce of Genoa by Kuhn & Co. American Merchants Residing in that City.* Genoa, 1804. 12 pp.

A practical little pamphlet, apparently to encourage American trade with Genoa, detailing harbor conditions, coinage, and articles of trade, with such comments as "South Carolina Rice will not suit the Market of Genoa. That from Piemont is preferred, and affords a sufficient supply to all neighbouring places."

Economic Theory

Because there are only a few important works among the early writings on economic thought not already owned by the Kress Library, acquisitions' policy in this field has mainly been directed at filling interstices.

Representative Accessions of the Past Five Years

SALUSTIO ANTONIO BANDINI *Discorso Economico* Florence, 1775. 209 pp.

A famous essay, written in 1737, about draining the Sieneese marshes, in which several important economic principles were set down.

[ANDERS CHYDENIUS.] *Den nationale Winsten/ wördsamast Öfwerlemnad til Riksens högloftiga Ständer/ af en deras Ledamot.* Stockholm, 1765. 36 pp.

The first edition of one of the most important writings of the leading Swedish economist of his time, constituting a simple, clear statement of the principles of economic liberalism. An English translation was published in 1931.

[FRANÇOIS MARIE AROUET DE VOLTAIRE.] *Diatribe a l'Auteur des Ephémérides.* 1775. 32 pp.

Voltaire in some respects approved of the group of French economists known as physiocrats, although he had criticized them in his witty, flippant *L'Homme*

aux Quarante Ecus, in 1767. This little pamphlet is addressed to Baudeau, the founder of the *Ephémérides du Citoyen* and editor at this time.

LE TROSNE. *Lettres a un Ami, sur les Avantages de la Liberté du Commerce des Grains et le Danger des Prohibitions*. Amsterdam, 1768. 168 pp.

An essay on the grain trade, written by a brilliant lawyer who was an enthusiastic follower of Quesnay and his group of physiocrats.

LOUIS NOËL FLURY. *De la Richesse. Sa Définition, et sa Génération . . .* Paris, 1833. 275 pp.

Manuscript comments by a contemporary economist, Louis Say, make this copy of Flury's work of special interest.

Lotteries

Numerous and varied forms of lotteries are described in treatises found in the Kress Library. The great popularity of this money raising device, based on the ease with which the citizenry could be lured by the intriguing hope of a grand prize to put down their money for nothing more certain than a card-ticket, gave rise to an extensive and colorful literature.

Representative Accessions of the Past Five Years

JOHN SHUTE BARRINGTON, 1ST VISCOUNT BARRINGTON. *The Lord Viscount Barrington's Case in Relation to the Harburgh Company and the Harburgh Lottery*. London, 1722. 24 pp.

Ibid. *A Speech on the Question, that the Project Call'd the Harburgh Lottery, is an Infamous and Fraudulent Undertaking, Whereby Several Unwary Persons Have Been Drawn into Their Great Loss: and That the Manner of Carrying it on Has Been a Manifest Violation of the Laws of the Kingdom. . .* London, 1723. 32 pp.

Barrington, an Irish peer, was expelled from the House of Commons for his connection with the Harburgh Company, whose lottery was considered fraudulent.

LONDON. LEASEHOLDERS AND CONTRACTORS. *The Representation of the Leaseholders and Contractors Interested in the Houses and Buildings in Pickett Street, Near Temple Bar; Skinner Street; Fleet Market; and Snow Hill. With the Schemes of the City State Lottery. And Plans and Elevations of the Different Buildings Constituting the Prizes*. London, 1805? 12 pp.

The Corporation of London, in the interest of improving the appearance of the city, transferred certain plots of ground on which a group of leaseholders agreed to build houses according to specifications set down by law. The Napoleonic War broke out after the contract had been signed; prices went up; labor became scarce. The houses were built, but at an advanced cost. Official permission was given to the builders to dispose of the houses as prizes in a lottery: 69 houses "being first-rate buildings, land-tax redeemed, and insured from fire."

SAMUEL ROBERTS. *The State Lottery, a Dream . . .* London, 1817. 112, 32 pp.

An inditement of lotteries and other evils of the times, with an amusing frontispiece in cartoon style. No lotteries were licensed in England after 1824; unlicensed lotteries had been prohibited since 1698.

Merchant's Manuals

The books the merchant kept on his office shelves for ready reference, or even took with him on his travels (some of them are small enough to be carried in his pocket), are mines of information to be tabulated and interpreted for our understanding of business life in past centuries.

Representative Accessions of the Past Five Years

GIOVANNI MARIANI. *Tariffa perpetua con le Ragion fatte per scontro de qualunque Mercadante si voglia*. . . . Venice, 1559. 279 pp.

A Venetian mathematician compiled this set of interest and exchange tables adapted to the needs of Northern Italy. The first edition was published in 1535.

JOHANN OLEARIUS. *Ausszug der exemplarischen Bet-kunst*. . . . Leipzig, 1676. 4 parts in 1 vol.

A pocket manual combining useful business information, such as foreign exchange tables, and a sort of Baedeker containing maps and a compass, with instruction for religious observances.

THOMAS LANGHAM. *The Nett Duties and Drawbacks of all Sorts of Merchandize, Imported and Exported, Plac'd in Alphabetical Order*. . . . Designed for the Use of Merchants London, 1727. 230 pp.

This detailed list, primarily of articles imported into England, forms a picturesque reflection of eighteenth-century life, including, for example, four varieties of night caps, "daggers, gilt, with velvet sheaths for children," "spokes for cart wheels," "shuttles for weavers," "bells for hawks."

PETER HUDSON. *A New Introduction to Trade and Business*. . . . The Seventh Edition, Corrected and Improved. . . . London, 1791. 116 pp.

A manual for apprentices covering bills of exchange and other business instruments, with "an alphabetical list of abbreviations or words, for dispatch of business."

KARL CHRISTIAN ILLING. *Kaufmännische Waaren-Berechnungen, enthaltend: holländische, englische, französische, spanische, portugiesische, italienische, russische, schwedische, dänische, preussische, polnische, hamburger und triester Einkaufs-rechnungen; ingleichen assecuranz- und haverie-Rechnungen nebst einer gründlichen Anweisung zu deren Berechnung*. . . . Leipzig, 1800. 219 pp.

Such treatises as this one on cost commodity computations were a step toward modern cost accounting.

Money

The printed output on this perennially important subject has been so abundant, detailed, and diversified that it was possible to make notable additions, in the five-year period covered by this paper, to an already strong collection.

Representative Accessions of the Past Five Years

JEAN BURIDAN. *Quaestiones et Dubia in Aristotelis Politica*. Paris, ca. 1489. cxiii numb. l.

The author, one of the leading monetary experts of his time, describes money succinctly as: some rare material, made effective by the state, brought into being

by the needs of men who must exchange goods, and given form by the sign of value put upon it.

HENRICUS GLAREANUS. *Henrichi Loriti Glareani Patricii Claronensis Liber de Asse* . . . Basileae, 1550. 1 numb. l.

A treatise on the history of money, and on weights and measures, by the famous sixteenth-century Swiss humanist.

NICOLAS DE COQUEREL. *Discours de la Perte que les François Reçoivent en la Permission d'Exposer les Monnoyes Estrangeres*. . . Paris, 1608. 28 pp.

Coquerel, an official of the "Cour des Monnaies" the supreme body that had over-all supervision of French money matters, particularizes the evils that have resulted from the circulation of foreign money. He stipulates the measures necessary to end these disorders and to put the monetary system on a sound basis. He states that the circulation of all foreign money should be forbidden, on penalty of death; all coins should be stamped with a replica of the King, they should not be clipped; base money should not be permitted; there should be no counterfeiting; frauds should be punished. This persistent reformer restated his ideas in a series of pamphlets published from 1609 to 1619.

The Pleasant Art of Money-Catching: Treating I. Of the Original Invention of Money. II. Of the Misery of Wanting it, &c. III. How Persons in Straits for Money, May Supply Themselves with it. IV. A New Method for Ordering of Expences. V. How to Save Money in Diet, Apparel, and Recreation. VI. How a Man May Always Keep Money in his Pocket. VII. How a Man May Pay Debts Without Money. VIII. How to Travel Without Money. To Which is Added, the Way How to Turn a Penny: or, the Art of Thriving. With Several Other Things, Both Pleasant and Profitable . . . The Third Edition, Corrected and Much Enlarged. London, 1782. 112 pp.

This popular piece, by a London merchant, was first published in 1684 as a sequel to *The Compleat Tradesman*, published the same year. Various eighteenth-century editions were followed by an early nineteenth-century adaptation.

CHARLES JOSEPH MATHON DE LA COUR. *Testament de M. Fortuné Ricard, Maître d'Arithmétique à D. Lu & Publié à l'Audience du Bailliage de cette Ville, le 19 août 1784*. 1785. 24 pp.

Having been left 24 livres by his grandfather to be untouched and compounded, Monsieur Ricard, now seventy-one and possessed of 500 livres, stipulates the disposal of his fortune: 100 livres are to be compounded for 100 years, 100 for 200 years, and so forth, the proceeds used to establish charities, found museums, pay off the national debt and finance other pet projects. A mathematical table is appended to prove the validity of this optimistic legacy.

JOHN BEALE BORDLEY. *On Monies, Coins, Weights, and Measures, Proposed for the United States of America*. Philadelphia, 1789. 25 pp.

Urges the United States to adopt the decimal system for its coinage and for weights and measures.

Railroads

In this branch of transportation, the Kress Library has enjoyed a firm foundation on which to build, consisting of: items acquired through Dr. Cole's efforts over the years; gifts, including Mr. Thomas W. Streeter's Collection of early

English and European railroad material, listed in a Kress brochure of 1946; the book collection of the Railway and Locomotive Historical Society; Mr. John Pierpont Morgan's four unique folio scrapbooks entitled *The Inception of the World's Railroads* that include ephemeral material such as prospectuses, share certificates, autograph letters, and engravings of equipment, many of them covering nearly a century, from 1791 to 1875.

Representative Accessions of the Past Five Years

ALEXANDER NIMMO. *The Report of Alexander Nimmo, Civil Engineer, . . . on the Proposed Railway Between Limerick and Waterford.* Dublin, 1825. 24 pp.

This little pamphlet is especially noteworthy in that it was published the year Britain's first railroad was opened and because the author, although an engineer, placed his emphasis on the economic aspects of his proposed railroad, detailing the products it could expect to transport, the profits it might anticipate from freight and passenger service, and the beneficial effect the railroad would have on the economy of the region it would serve.

THOMAS TALBOT BURY. *Six Coloured Views on the Liverpool and Manchester Railway, With a Plate of the Coaches, Machines, &c. From Drawings Made On the Spot . . .* London, 1831. 7 colored plates.

A comparison of the plates in this and the other two editions owned by the Kress Library, one published in 1832 and the other in 1837, shows in detail progress in the construction of this railroad, one of England's first.

RITTER FRANZ ANTON VON GERSTNER. *Ueber die Vortheile der Anlage einer Eisenbahn von St. Petersburg nach Zarskoe-Sel[o] und Paulowsk . . .* St. Petersburg, 1836. 68 pp.

A famous railroad engineer and authority on the railroads of his time, bases his plans and estimates for the first Russian railroad on what has already been accomplished in other European countries and the United States.

JÓZEF MARIA HOËNE-WRONSKI. *Pétition aux Deux Chambres Législatives de France, Sur la Barbarie des Chemins de Fer, et sur la Réforme Scientifique de la Locomotion.* Paris, 1838. 32 pp.

Men want and need faster transportation, says the author, but "fixed" railroads are not the scientifically correct solution and should not be granted a monopoly. He proposes "rails mobiles" of which he is having models constructed.

A. FERBER. *Leitfaden über die gesammte Eisenbahn-Betriebs-Organisation, zum Gebrauche für Aktionäre, Verwaltungsraths- und Direktions-Mitglieder, Revisoren u., namentlich aber für Eisenbahn-Betriebsbeamte . . .* Arnsberg, 1849. 232 pp.

Ferber's is a notably early guide to the administration of a business, specifying, with German thoroughness and attention to detail, everything from the financial organization of the corporation to the duties of the baggage master.

Taxation

The present-day official looking for untapped sources of revenue or unaccustomed methods of levy might well cull the tax schemes of the past, practical and impractical, tried and untried, that stand described on the shelves of the Kress Library, although it must be admitted his public might find some of them, such as a window tax, somewhat unpalatable.

Representative Accessions of the Past Five Years

Reasons Humbly Offered to the Honourable House of Commons, for Laying a Further Duty on all Foreign Paper; by Which Means the Manufacture of Paper in England, Will be Encouraged. London, 1698? Broadside.

The "making of paper in England is Come to a very Great Perfection; and Implies great numbers of Poor People."

Nouvelle Ecole Publique des Finances ou L'Art de Voler Sans Ailes par Toutes les Regions du Monde. Paris, 1707. 274 pp.

An amusing attack on the tax farmers. Published in several editions; the second edition, 1709, is also in the Kress Library.

CUSTOMS ESTABLISHMENT, GREAT BRITAIN. *Instructions for the Tide Waiters of Excise in the Port of London.* London, 1754. 16 pp.

These specific orders to the class of customs officials who were the first to board an incoming ship are full of beguiling details, reflecting the times. It is the tide waiter's duty to itemize the cargo in his minute book, in conjunction with a thorough inspection. He is told: "You are to provide yourself with a good dark Lanthorn," with a candle "well secured within," "that no objection may be made by the Master, &c. to your rummaging; as also with a Gauging Rule, a Gimblet, and Spiles." He is to watch out for any small casks of rum the Master might leave out of his report; he is "to taste every Cask" before he inserts it in his book.

Observations sur l'Injustice et l'Immoralité des Droits d'Entrée dans les Villes. Paris, 1791. 46 pp.

A concerned group of citizens asserts in a carefully prepared statement that the proposed levies are unconstitutional, would upset the present equal distribution of the tax burden, encourage smuggling, hamper the establishment of new manufacturing enterprises within the limits of cities, and be a detriment to agriculture, commerce, and industry. They recommend that the additional sum the government expected to receive from this tax be added to the "contribution mobilière" (personal tax) dividing it among all the citizens, without exception. A subproposal includes that old favorite among money raising schemes, a window tax.

Varia

Exemplified in this section are sundry publications that have been added as possible sources of hard-to-find-information — a single sought-for fact here, an obscure name there — and also in order that the resources of the Kress Library may provide as complete a picture as possible of the economic and business life of the past. Here is material for numerous doctoral dissertations, articles, and books — nuggets of thought, wisdom, experience waiting to be strung together for the information, consolation, or inspiration of the teacher, businessman, and public servant of today.

Representative Accessions of the Past Five Years

JOHANNES PHOONSEN. *Wissel-Styl tot Amsterdam.* Amsterdam, 1676. 336, 208 pp.

A treatise on foreign exchange is followed by the trade regulations valid in the leading Dutch, German, French, and Italian centers, each in the original language. This book was reprinted at least ten times.

MOSES STRINGER. *English and Welsh Mines and Minerals Discovered, in Some Proposals to the Honourable House of Commons. For Employing the Poor, to Gain the Hidden Treasures of this Kingdom* . . . London, 1699. 28 pp.

A public spirited citizen proposes a national stock company to develop the mineral resources of England and help the poor by settling groups of families on moors and waste lands where the men can work the mines.

Manifestes des Marchandises d'Entrée dans le Port de Marseille. Marseille, 1779. Nos. 1-101, Jan. 1-Dec. 22, 1779. (Nos. 14 and 48 are wanting.)

Such biweekly inventories of the individual cargoes of ships unloaded at Marseille during 1779 typify printed matter that is rare because it was not considered worth preserving when outdated. In each case, the inventory includes the name of the ship and of the captain, its port of embarkation, and the merchants to whom the different parts of the cargo are consigned.

The East India Kalendar; or, Asiatic Register for Bengal, Madras, Bombay, Fort Marlborough, China, and St. Helena. For the Year 1792. On a More Extensive Plan Than Any Hitherto Offered to the Public. Containing Complete and Correct Lists of the Company's Civil, Military, Marine, Law, and Revenue Establishments: Public Offices, Bankers; Greek, Armenian, Mogul, and Portuguese Merchants; Company's Agents at Home and Abroad. London, 1792. 172 pp.

A collection of lists like this is a mine of ephemeral information. The British Museum's Catalogue of Printed Books lists 11 volumes, published from 1791 to 1800.

The Book of Trades, or Library of the Useful Arts. London, 1804-1805. Parts 2 and 3.

This is apparently the first edition of a popular work that was republished during the following 20 years (the Kress Library has the 12th edition, 1824). There is a short description of each trade, such as stocking weaver, pin maker, milliner, with details about their products. To give an example: "The taylor makes clothes for men and boys, and riding-habits for ladies. In a taylor's shop where much business is carried on there are always two sorts of workmen: first the foreman, who takes the measure of persons for whom clothes are to be made, cuts out the cloth, and carries home the newly finished garments to the customers. The others are mere working taylors, who sit cross-legged on the bench, like the man near the window represented in the plate: of these very few know how to cut out, with any degree of skill, the clothes which they sew together." The tailor's tools are described, and where he buys his supplies. "The wages of a journeyman taylor are regulated by act of parliament, and he now has four shillings and sixpence a day: the trade is overstocked with hands, though men that are sober, industrious, and skilful in their business, are seldom out of employment. In times of general mourning for any branch of the Royal Family the wages of the men are double, but they work more hours in the day."

BENJAMIN SCHLICK. *Rapport Fait à l'Académie des Beaux Arts de l'Institut de France . . . sur le Chemin Souterrain, Dit: Tunnel, Qui s'Exécute en ce Moment, Sous la Tamise à Londres*. Paris, 1826. 12 pp.

This pamphlet was published when the famous project was still uncompleted and visitors were admitted at stated hours to "a dry, warm, and gravelled promenade, as far as to almost the centre of the river, and brilliantly lighted with oil gas."



Like the financial mart from which it derives its name, OVER THE COUNTER is designed for the types of exchanges not handled elsewhere. This feature has its origin in a demand among readers of business history for a place to compare ideas, voice comments on published articles and reviews, and publish research essays. Contributions are invited. The Editor and Advisory Board reserve the right to decide whether, on the basis of general interest, pertinence, and merit, such contributions will be published. OVER THE COUNTER will appear as often as the volume of contributions may dictate.

THE INADEQUACY OF PROFIT MAXIMIZATION AS A MODEL OF BUSINESS BEHAVIOR

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Economists as well as historians know well that the realities of the empirical world do not conform to models. For the economist this is a matter of little importance, for models serve his deductive purposes if they contain premises upon which rational men can agree. Like common nouns they permit logical discourse despite the empirical fact that proper nouns are variants from the norm. Historians, on the other hand, are as likely to be as interested in the variants. Indeed, they regard norms as merely tentative generalizations and seek their refinement in the crucible of particulars. One such norm is the concept of the businessman as profit maximizer. While this concept has long served such historians as Sombart as a model of capitalist motivation,¹ recent scholars edging in

¹ Sombart held that the "acquisition principle," characteristic of capitalism, "urges toward the maximization of

for a closer look are finding important grounds for questioning its adequacy. There is much reason to believe that businessmen have often been unwilling to seek maximum profits at the cost of security. If they have sought to maximize profits they have also sought to minimize risks.

G. Heberton Evans has recently suggested that a larger number of present-day businessmen might well be able to increase their profits by introducing cost-cutting techniques. But since these techniques involve change, the "major repercussions of which doubtless fall on the worker," management's awareness of employee hostility induces them to seek "comfortable profits" rather than maximum gains.² A frequent reluctance in the past to achieve greater efficiency by means of technological innovation adds depth to Professor Evans' suggestion. The studies of W. Paul Strassmann cite numerous instances of technological conservatism in the history of American industry.³ The examples of merchants Nathan Trotter of Philadelphia,⁴ the Browns of Providence Plantations,⁵ and Robert Oliver of Baltimore⁶ exhibit in the fields of foreign and domestic trade a highly similar circumspection in the face of potential profits. The caution of commercial bankers has been historically notable, if insufficiently documented, although Dr. David M. Cole has just provided a footnote by his careful study of the *Development of Banking in the District of Columbia*.⁷ Indeed, if one adds to this vista a consideration of the extent to which groups rather than individuals have pared or shared the element of risk the conceptual image of the profit maximizer fades still more as a pattern of empirical behavior.

Both the keen desire to reduce the element of risk and the dependence upon others in doing so are strikingly revealed in the admonition of a Baltimore merchant house to its Boston agent in 1784: "I can only say this that if we do not pay strict attention in writing & answering our Letters p every post. we had better leave writing. at all. [sic] and trust all to Chance. . . ."⁸ The extensive use of resident agents in both European and American trade in the eighteenth century probably had as its primary end the reduction of risk via exchange of market information, timely purchases and sales, advances of proceeds, and other services.⁹ Other illus-

profit." See selections from *Der Moderne Kapitalismus* reproduced in Frederic C. Lane and Jelle C. Riemersma, eds., *Enterprise and Secular Change* (Homewood, Illinois, 1953), pp. 25-40 (esp. p. 38).

² "Business Entrepreneurs, Their Major Functions and Related Tenets," *The Journal of Economic History* (June, 1959), pp. 269-270.

³ *Risk and Technological Innovation: American Manufacturing Methods During the Nineteenth Century* (Ithaca, 1959); also see the same author's "Risk, Entrepreneurial Caution, and Business History," in *Business History Review* (Winter, 1958), pp. 455-459.

⁴ Elva Tooker, *Nathan Trotter, Philadelphia Merchant, 1787-1863* (Cambridge, 1955): "Nothing is clearer throughout Trotter's business career than his prudence, caution, and moderation" (p. 57).

⁵ James B. Hedges, *The Browns of Providence Plantations* (Cambridge, 1952). Hedges found "many illustrations of the care with which the Browns gathered all possible information before embarking upon a new venture" (p. 330).

⁶ Stuart Bruchey, *Robert Oliver, Merchant of Baltimore, 1783-1819* (Baltimore, 1956). Oliver repeatedly showed his concern for security as well as profit potentiality (see pp. 364-365).

⁷ (New York, 1959). "However, because it is so respectable, conservatism may be the term adopted to cover such characteristics as timidity or complacency" (p. 527).

⁸ Letter to Francis Jonhnot, Feb. 15, 1784 (Letter Book, Johnson, Jonhnot & Co., 1783-1785, in the Maryland Historical Society, Baltimore).

⁹ Virginia D. Harrington points out that both Sombart and Max Weber considered the growth of consignment trading "the outstanding feature of eighteenth century trading" (*The New York Merchant on the Eve of the Revolution* [New York, 1935], p. 68); For the importance of agents in the trade between Amsterdam and the ports of England, Spain, and other countries, see Charles Wilson, *Anglo-Dutch Commerce and Finance in the*

trations flock to mind. One thinks of the emergence of ancillary organs (for example, prices-current) and institutions (for example, credit-rating bureaus) of an informational character. One thinks of the rise of insurance, of risk-sharing via joint investments, of limited liability, of market understandings between producers or sellers, of vertical integration, of diversification. All of these devices protected individual investments or the firms which made them. On another plane appears the security given various sectors of the business community by governmental aids almost too numerous to mention (for example, protective tariffs, or land grants and bond loans to railroad companies). On perhaps the highest plane one senses the security sought by the business community as a whole via the indoctrination of political parties (contributions to which may be viewed as premiums paid for social insurance), and even of entire cultures, with the norms and values of that community. This is not meant to be entirely disparaging, for in the long light of history since the emergence of enterprise out of self-sufficiency the businessman has often played underdog, bowing before forced loans and defalcations, banishments, and costly toleration.

Considerations like these make it appear probable that businessmen have very often sought to reduce or lay off some of the risks of enterprise. They lend support to Professor Evans' rejection of the entrepreneur as risk-bearer.¹⁰ They suggest that institutions, groups, and communities have played important parts in reducing risks of various kinds, and somewhat blur the image of the risk-running individualist by moving the margin of social contribution closer to the center. They should lead, finally, to a careful examination of particular investment decisions in the light of their relevant internal and external contexts as a prelude to the fashioning of a model more suited to historical actuality than the concept of profit maximization.¹¹ There would appear many reasons for believing that businessmen have sought security as well as profit, and which of these they have sought to maximize at particular times and places is the question at hand.¹²

Eighteenth Century (Cambridge, 1941), p. 11; also see the present author's *Robert Oliver*, esp. chap. 3.

¹⁰ Evans, "Business Entrepreneurs," p. 250.

¹¹ "Risk," of course, is in part a statistical and in part an accounting concept. Insurance mortality tables, or numbers of captures of American merchantmen by an enemy in wartime, illustrate the statistical aspect of risk-taking. The accounting aspect concerns the cost of a risk in relation to total assets, or, where considerations of liquidity are important, to fixed capital. It is obviously less "risky" for a large corporation to sustain the costs of many innovations than it would be for a small firm, where the cost of change might bear a high ratio to available resources.

¹² In a letter to the author, Prof. Arthur H. Cole suggests the possible usefulness of a theory of "strategic risk-taking and tactical risk-reduction," citing as illustration the case of the East India Company, which, having sent vessels to trade with the Far East, proceeded to attempt to minimize unnecessary risks. Prof. Cole also cites striking examples from broader human fields: "The Wright brothers and then others decide to try flying; and then everyone goes to work to make flying safe." Having decided as a nation to go to war we then "marshall our doctors and nurses and ambulances so that fatalities are kept to a minimum." It seems to me this suggestion may be pertinent to many contexts.

HAGLEY MUSEUM HISTORY FELLOWSHIPS

The University of Delaware, in cooperation with the Eleutherian Mills-Hagley Foundation, will award two Hagley Museum Fellowships in April of 1961 for the academic years 1961-1963. Recipients of these grants take graduate work in history and related fields at the University of Delaware. In addition, they spend half of each week during the academic year at the Hagley Museum, Wilmington, Delaware, where they receive training in museum work, and at the Eleutherian Mills Historical Library, where they conduct research. They complete their work, including a thesis, in two years, and graduate from the University of Delaware with a Master of Arts degree in American history. The program is of special interest to those who wish to study the development of American industry and technology.

Each fellowship carries an annual stipend of \$1,800, and is renewable upon satisfactory completion of the first year. Applications should be received by March 5, 1961. For further details, address the Chairman, Department of History, University of Delaware, Newark, Delaware.



BOOK REVIEWS

THE CORPORATION IN MODERN SOCIETY. *Edited with an Introduction by Edward S. Mason; Foreword by A. A. Berle, Jr.* Cambridge, Harvard University Press, 1959. Pp. xv + 335. Hard covers, \$6.75; Paperback, \$3.50.

Reviewed by K. E. Boulding
The University of Michigan

The symposium, in general, is the despair of reviewers; it is usually impossible to do justice to the content and variety of the articles, and the mere listing of authors and topics exhausts the space of the review. The present symposium is rich in content and unusually uniform in quality and style — one suspects from purely textual evidence that the editor exercised a strong but benevolent discipline over the team. The volume is conceived as part of a larger inquiry conducted by the Fund for the Republic into the problem of constitutional rights and liberties in the modern world. A central interest of this study, and of the volume under review, is therefore the constitutional and political aspect of the corporation as an institution which barely existed when the American constitution was written, which has grown to a dominant position in the society under the protection of that constitution, and which therefore poses the problem as to whether further constitutional change is necessary in the larger framework of the society to take account of this unforeseen brood of little Leviathans. As far as this reviewer can judge no clear answer emerges from the symposium, or from the discussion to date. The symposium, as might be expected, is competent and judicious rather than prophetic and inspiring; it is, indeed, a rare symposium and a rare foundation that produces a prophet. Perhaps, indeed, the situation is not one which requires a prophet. The Corporation, as Abram Chayes suggests, is a "facility." It is a workhorse rather than a charger. It does not arouse strong passions; it is part of the furniture rather than of the glory of our society. It may be therefore that a judicious appraisal of its relatively minor virtues and defects is more in order than a trumpet call to something or other.

After the preface by A. A. Berle, who reviews the course of his own long hate-and-love affair with the Corporation and concludes that maybe his partner in this affair has changed more than he has, and an excellent summary article by the editor, the contributions fall roughly into four groups. First come three essays by lawyers, two from Harvard and one from Yale. Abram Chayes discusses the Corporation and the Rule of Law,

centering his discussion around the problem of the "constituency" of the corporation. Eugene Rostow, writing on "To whom and for What Ends is Corporate Management Responsible" discusses the "endocratic" corporation (a nice word which in my ignorance I had not seen before) and hankers somewhat nostalgically for profit maximization and business being business rather than welfare and government. Kingman Brewster discusses the Corporation and Economic Federalism; I confess I found this judicious to the point of obscurity, and I could not quite decide whether he thought the concept of sovereignty was sufficiently applicable to the corporation to make us worry about its limitation through federal institutions.

Next come five essays by four economists and one sociologist. Carl Kayser discusses the power and scope of the Corporation with a good many rhetorical, and unanswered questions. W. Lloyd Warner, the sole sociologist on the program, summarizes the results of his studies on Corporation Man — on the whole finding him reasonably creative. Neil Chamberlain discusses the Trade Union in its impact on the Corporation, and on the whole concludes that the actual impact of the union is a very modest one, especially in regard to wages. Jacob Schmookler summarizes his own research on technological progress in the Corporation, with the conclusion that the major deficiencies lie in the public rather than the private sector. John Lintner presents an interim report on his very extensive studies in the financing of Corporations, one important, and rather surprising conclusion of which is that what little change there has been in the proportion of internal to external financing in recent decades points to a decline rather than an expansion in the reliance on internal financing. The impact of pension funds is shown to be of great potential importance for the future, though possibly exaggerated at the present.

The next two papers are by political scientists, one by Norton E. Long on the Corporation, its Satellites, and the Local Community, which perhaps comes as close to sounding the minatory note as any of the essays, and calls attention to the "imperial" position of the Corporation in the local community, and the weakness in community relations and integration which this implies. Earl Latham discusses the Corporation as a political system involving five essentially political elements, which I will try to summarize as authority, legitimacy, hierarchy, sanctions, and enforcements. The next essay by Raymond Vernon on the American Corporation in Underdeveloped Areas also deals essentially with the political aspects of the Corporation, and the advantages or disadvantages of its use as an instrument in the current struggle for the uncommitted areas of the world between the capitalist and socialist blocs.

Finally come two papers on conditions outside the United States: one by G. A. R. Crosland on the Private and Public Corporation in Great Britain, which emphasizes the relative lack of difference between them and hence the relative irrelevance of nationalization, and the other a brilliant essay by A. Gerschenkron on Industrial Enterprise in Soviet Russia, which points up in an entertaining and stimulating manner some important similarities, as well as differences, in the organization of large-scale enterprise on both sides of the ideological curtain.

The critic of a symposium looks, of course, for sins of omission. Al-

though the coverage of the volume is broad and its authorship of fairly uniform competence, one misses the really incisive and critical note. Perhaps this reflects the geographic concentration of the authorship — seven from Harvard, two (basically) from Yale, and one from Amherst, three from big Middlewestern universities. One would like to see more on the Corporation as an organization, especially as a large organization, and a close look as to how far its structure and properties are due to size rather than to any specific function or form of corporate government. One would like to take a look at the "semi-corporations" in the United States as well as abroad — the Pentagon, the Department of Agriculture, the big Universities, the Hospitals, the Foundations, the Cooperatives. Perhaps we can see the corporation as merely one segment of a large spectrum of organizational types, most of which get to look more and more alike as the years roll on. For this reviewer at least the symposium is perhaps too judicious, and has too much of the rhetorical question, of the "on the one hand this and on the other hand that." One would like to see a real heretic flutter some doves and stir up debate. Still, sins of omission are usually venial rather than mortal, and in this case they do not detract from the solid value of the volume. A symposium is almost inevitably meatloaf rather than steak, but at least this particular meatloaf contains some solid protein. I expect the volume to be very useful, especially at the undergraduate and "intelligent lay reader" level.

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ADMINISTRATIVE VITALITY: THE CONFLICT WITH BUREAUCRACY. By Marshall E. Dimock. New York, Harper & Brothers, 1959. Pp. xiii + 298. \$5.00.

Reviewed by Alfred D. Chandler, Jr.
Massachusetts Institute of Technology

This book, written by a political scientist with administrative experience, should interest business historians. Not only has the author drawn on business history to fashion his concepts but many of the ideas he develops are most useful for analyzing and interpreting the story of individual business enterprises and broader changes in American business.

Dimock, following the pattern set by Max Weber's pioneering analyses more than a generation ago, is concerned more with the similarities between large-scale administrative organizations — be they military, political, or business — than with their differences. His basic inquiry is into the nature of efficient administration. His thesis is, despite the implications of his title, that successful management depends upon finding a proper blend between bureaucracy and enterprise. By bureaucracy, he means the existence of a rational, systematic organizational structure. Enterprise he defines as the existence of initiative and innovation in the organization. Concepts about the first, Dimock points out, were initially developed by the practitioners of scientific management. Those concerning the second came more from the writings of the advocates of the "human relations" school of management. Both factors are essential to administrative success. "Blind reliance" on "rational arrangement, priorities, logical distribution of functions, and clear categories" without consideration for individual

motivation and opportunities can lead to an overemphasis on complex, formal procedures and so destroy efficiency and morale (p. 265). On the other hand, creative individual enterprise "is impossible unless the methods are rational and systematic as well as intuitive and inventive."

Dimock supports this thesis with a wealth of empirical data. But even if he had less facts, few would debate the validity of his argument. The weakness of his major thesis is not in its correctness but in its lack of precision. This weakness, in turn, seems to be largely the result of the author's concentration on the similarities rather than the differences within large organizations. Military, governmental, or business units have quite different goals. So do, in fact, the different offices within a single large business enterprise. The objectives of a manufacturing department vary somewhat from those of a sales organization. Even broader differences exist between aims and duties of a general headquarters and those of a single plant or branch office. Different goals create different needs, different criteria for determining success, and therefore call for somewhat different methods in management and often administrators with different temperaments and personalities.

This apparent unawareness of the importance of such differences makes for some confusion in Dimock's analyses and recommendations. It may also account for his failure to point to some important administrative tools. For example he stresses, as do the followers of the "human relations" school, that the men involved in carrying out major decisions should participate in their making. Yet a few pages later, he praises the procedure at General Motors and A.T. & T. which centralized the making of policy and decentralized its execution. In both these companies, operating men are rarely represented in the formulation of basic policy. There is group participation in policy making, but it is carried out by general executives and staff officers in the general office, and not by the division managers. At each level below the general office, executives do participate in determining the means to achieve the goals set by the higher office. But even here, a single individual, not a group, is usually responsible for results.

One reason why policy making can be centralized in such large business enterprises is because a steady flow of detailed statistics, reports, and other communication provides the central office with a constant check on the performance of the operating executives. Dimock says almost nothing about the development of such statistical, financial, and informational controls. Such administrative tools, so essential to management decentralization, are much harder to formulate for administrative offices whose goals are political, military, or ideological than for profit oriented enterprises. In other words, because of such different goals, some business administrative practices, such as decentralization, may not necessarily be applicable to political and military organizations.

Dimock's failure to make enough of the differences between the goals and needs of various types of large-scale organization should not, however, lessen the value of his book for business historians. The greatest weakness of the historian's approach to his subject is in fact an overconcentration on differences. Too often the story of the enterprise or industry he is studying appears to him almost a unique tale. He seems to forget that all enterprises still do have many comparable management problems of administration

even if their goals are different. Moreover, he tends to be unaware of what social scientists have written on these problems and issues. Dimock's study provides a quick and interesting way to become acquainted with the work of sociologists, political scientists, and psychologists concerning the management of large-scale enterprise. The reader will be a better historian after he has completed this book.

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BRITISH INDUSTRIALISTS: STEEL AND HOSIERY, 1850-1950.
By Charlotte Erickson. The National Institute of Economic and Social Research, Economic and Social Studies, No. 18. Cambridge, England, The University Press, 1959. Pp. xxxi + 276. \$7.50.

Reviewed by Mable Newcomer
Vassar College

The origins of business leaders attracted greater popular interest — particularly in this country with our emphasis on opportunity for all — in the earlier part of this century than today. But if contemporary business executives feel neglected because of their declining newsworthiness, they may find some consolation in the growing interest of social scientists which has resulted in a number of comprehensive and well-documented studies in recent years, both here and abroad.

Dr. Erickson's study is devoted to the leaders in two English industries, hosiery and steel, over a period of 100 years. For the hosiery industry an intensive study has been made of all the leaders that could be identified, regardless of size of business, in the Nottingham area where much of the industry has been concentrated. For the steel industry, on the contrary, the largest companies were selected from the entire area of England and Wales. Consequently, the latter group represents the executives of much larger concerns than does the former group.

Most of the data have been found in a variety of local records, and every effort has been made to obtain information for the larger part of the executives of each group so that the comparisons for different time periods, different industries, and different sizes of concerns can be accepted as valid. The specific facts include fathers' occupations, place of birth, education, and marriages; and also business experience and service in and out of the firm in question. Comparisons are made not only between the two groups studied but also between these groups and other business leaders that have been included in other studies in England and America insofar as the data are comparable.

The origins of the different groups of business leaders are found to differ as between the hosiery and steel industry, and with the period and the size of the firm. In general the study shows trends similar to those found in other studies, such as an increase in the educational level of the executives, although a smaller proportion with college or university training is found among the English industrialists than among American businessmen. It also shows a decline in the proportion inheriting the specific concern or inheriting the capital necessary to acquire a substantial interest in it, in England as in the United States. But perhaps the most significant findings concern the relation of successful innovators to the development of the

business itself. To illustrate, a larger proportion of successful innovators appears among the proprietors of the young but well-established firms than in either the long-established concerns or those at the very beginning of their careers. Also, the successful firms are headed by men with commercial abilities and training rather than by technicians. The executives of public companies have, on the whole, had more specialized training and experience than the executives of the private companies. Also, they have tended to move from one company to another rather than working their way up in the company they finally headed.

It is not possible to summarize all the important findings of this study in a brief review, but the book as a whole is a careful and scholarly study in a field in which, in spite of several recent studies, the data are still too limited; and it is well organized and written so that the reader can obtain the findings with a minimum of effort. A series of appendices provide data concerning the organization and period of existence of individual firms and more detailed data concerning the origin of the proprietors than is provided in the text tables. There is also an extensive bibliography which should prove useful to other students of business history. In short, this is an important contribution to the literature in this field.

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IRON IN THE MAKING: DOWLAIS IRON COMPANY LETTERS, 1782-1860. *Madeleine Elsas, ed., Glamorgan, County Records Committee of the Glamorgan Quarter Sessions & County Council and Guest Keen Iron & Steel Company Limited, 1960. Pp. xix + 247. 10/6 or \$2.00.*

Reviewed by E. N. Hartley
Massachusetts Institute of Technology

In celebrating the bicentenary of its parent firm, Guest Keen Iron & Steel Company Limited has proceeded in a manner that American companies with long histories might usefully emulate. Having deposited its incredibly voluminous business papers for the period 1759-1899 in the Glamorgan County Record Office, it now publishes, jointly with the Committee responsible for that Office and under the skilled and neutral editorship of the County Archivist, an impressive collection of business letters. Believed to be the first large volume from a County Record Office wholly given over to an industrial theme, it is a credit to the company and to Madeleine Elsas and her trained professional staff. Interesting, significant and useful, it will be informing, and whetting the appetites of students of business history in the heyday of the Industrial Revolution when the glib, folksy and ancestor-worshipping products of public relations firms are gathering dust on the shelves.

The letters are those of a small South Wales ironworks which under skillful management and in a favoring economic climate grew into an industrial giant. Nicely put together and published in a handsome volume, they offer a kind of cameo of the Industrial Revolution at the level of the single firm. The firm's activities came to be far-flung and the period was rather more complex than many realize. In consequence these letters drive home with the immediacy of primary documents, many of them amazingly eloquent, the depth and breadth of impact of that great movement that we

call the Industrial Revolution. They indicate that modern history is a matter of both continuity and discontinuity. Some, e.g., a plea that union membership and Christianity are incompatible, bespeak an age which is past. Some, e.g., an effort to oppose legislation aimed to reduce air pollution, sound strangely modern. Here is the mobilization of economic, political, and military force against union activity. Here are delicately balanced consortia of ironmasters fixing prices and controlling output, influencing politics at both the national and local level, and, in certain instances, sharing technical information. Here, too, are quite competitive ironmasters breaking out of line on price or output, raiding one another's skilled labor force, and mounting vigorous sales efforts by agents and "travellers." Dowlais' record of technological innovation is impressive — the rolling of iron rails, the use of steam engines, the leasing of the Bessemer process. So is its adjustment of production to changing needs. Originally a producer of pig iron exclusively, it came to supply gas and water pipe, plates and bars, and, above all, rails for the railroads of the British Isles, the Continent, the United States, and Asia. Effectively recorded, also, are the company's internal problems ranging from disagreements among the partners to difficulties in finding and keeping the skilled men required by an increasingly sophisticated technology and to troubles of quality control.

One must wonder why this ironworks grew and prospered so mightily. Set up by nine partners in 1759 with a total capital of £4,000, and offered for sale at a price of £60,000 to Richard Crawshay of Cyfartha in 1792, it had so burgeoned that five of its sixteen shares were worth £200,000 when it was brought under single ownership by Sir Josiah John Guest in 1846. By the turn of the present century, when it was acquired by Arthur Keen and combined with the Patent Nut and Bolt Company of Birmingham to form Guest Keen & Company, it had absorbed the neighboring Penydarren Iron Works and the great Cyfartha Works as well. Seemingly central in the process of growth in the crucial years, as clearly it is dominant in the letters, is the Guest family. John Guest became manager of the ironworks in 1767 and a partner in 1782. (It is no coincidence that the letters have the latter year as their starting point.) He was succeeded by an able son, Thomas, and a son-in-law, William Taitt. The latter was in control until his death in 1815, and the letters of his here published stand as gems of family and business communication. He was followed by the former's son, Josiah John, who became the very model of a great ironmaster, serving in Parliament, receiving a baronetcy, enforcing subordination on his workers but providing them and their families with churches, schools, and medical facilities, marrying into the aristocracy, and siring ten children, the oldest of whom became the first Baron Winborne and married the eldest daughter of the Duke of Marlborough. In Sir Josiah John and in his wife, who ran the business in her husband's declining years and in the interval between his death and her remarriage, were lodged conspicuous ability, large energy, and great assurance with regard to the policies they pursued. They appear in these letters as fine types of a by-their-lights benevolent and socially responsible industrial aristocracy, and it is clear that they *worked* in their calling.

In the present volume the Guests, and indeed almost everything else,

are seen only in reflection. Very nearly all of the letters are those sent to the Guests and their partners, associates, and managers. The outgoing letters, except for the periods 1782-1794 and 1874-1883, have been lost. One wishes, of course, that he could read the replies to many of the communications here presented under the categories of: "The Ironmasters," "Masters and Men," "The Business," "Markets and Sales," "Transport and Communications," and "Technical." This cannot be, in most instances. In this book's 628 letters, however, there is much of entrepreneurial, technical, social, and human interest, and in an excellent introduction there are guide lines to the mountainous remainder of the Dowlais Papers, a matter of 563,000 letters and thousands of other business records. The editor aimed to make her selection without bias and, in this reviewer's judgment, did so. She also chose to let the letters speak for themselves. Some readers might prefer more explanation and annotation, and a subject matter index would be a useful complement to the biographical index with which the book is provided, but the over-all editing is excellent, technically and with respect to general policy. Thanks to it and the care with which the Dowlais Iron Company papers have been preserved we have a useful addition to the local industrial history out of which the new large history is likely in great part to be written.

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I HAVE KNOWN MANY WORLDS. By Roger Burlingame. Garden City, New York, Doubleday & Company, Inc., 1959. Pp. 283. \$4.50.

Reviewed by Evelyn H. Knowlton
Peekskill, New York

This autobiography is of interest to the business historian because it tells of a novelist and nonfiction writer who gained a name for himself writing business histories, his last being *Endless Frontiers, The Story of McGraw-Hill*. This history, which concentrates upon technological developments and their importance to society rather than upon the business operations of the firm, arouses curiosity about the author's background. Burlingame's very readable autobiography answers many of these questions.

The book is a series of flashbacks from his present life in a Connecticut exurbia home with his wife, his former literary agent, into 22 earlier "worlds" which cover nearly 70 years. Important among these worlds were the ones with his father (an autocrat and editor of *Scribner's Magazine* for many years), who practically dictated to his son that he choose some other career than writing. The son decided upon engineering. But after failing mathematics at Harvard University, he was permitted to change to a liberal arts course in preparation for literary work. Following graduation he accepted a humble job in a small publishing house, as did many who aspired to become editors or authors. Within a short time, under pressure from his father, he accepted a position with Scribner's. This work was interrupted by service in World War I. Thereafter, he became an editor at Scribner's and began to write independently. The success of his first two novels enabled him to resign his position and embark upon a free-lance career. He lived for a time in Italy. But his novels and short stories were not successful. Consequently, he turned to non-

fiction, writing biographies and also an ambitious two-volume history of technological development in the United States. In these two volumes he stressed the social impact of technology. Again his career was interrupted by war service. When he resumed writing, his interests remained the same. The last book which he mentions is *The American Conscience*, published in 1957.

After examining Burlingame's recent works, two questions occur to this reader. Will business history continue to remain so loosely defined as to permit the inclusion of so many varieties of work? Will business firms turn to writers of widely varying backgrounds and interests and expect the resulting accounts to qualify as history?

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THE MASSACHUSETTS LAND BANKERS OF 1740. By George Athan Billias. *University of Maine Studies, Second Series, No. 74.* Orono, Maine, The University Press, 1959. Pp. x + 59. \$1.00.

Reviewed by Neil A. McNall
Pennsylvania State University

In this compact but significant study of one facet of the monetary history of the colony of Massachusetts, the author challenges the perduring interpretation of the Land Bank as the product of agitation by poor, agrarian debtors "who embarked on this paper money experiment as a means of escaping payment on their debts and taxes by creating a cheap currency based on land." He declares that the perpetuators of this interpretation have accepted it uncritically, and sets himself to the task of evaluating the available evidence.

After summarizing earlier efforts to secure paper currency he moves directly to the circumstances leading to the creation of the Massachusetts Land Bank. He touches on the opposition of the wealthier, more conservative, and more influential "silverite" merchants to the creation of a "land bank," and of the opposition of the governor, Belcher. His unique contribution is made in an analysis of the economic status of the few men who were directors and of the many more who were subscribers to the Bank. Extant records revealed that invariably these individuals possessed considerable property, and were not agrarian debtors. He concluded that in many instances a correlation existed between widening ownership of undeveloped land and participation in the Bank, as subscribers sought bank funds, using as security for these their new and unsettled lands. On the whole he sustains his thesis well at these points.

To a degree the weakness of the study rests in the lack of information on all of the individuals who were subscribers, and in inadequate attention to the condition of the debtor-farmers of the colony in the era of the Land Bank. The work is quietly written, and the documentation adequate. One wonders, however, at the repeated citation of Robert E. Brown, *Middle Class Democracy and the Revolution in Massachusetts, 1691-1780*, and its omission from the bibliography, where reference is made instead to Dr. Brown's unpublished doctoral dissertation. Though brief, the Billias study makes a considerable contribution to the history of one of America's early monetary experiments.

THE THEORY OF THE GROWTH OF THE FIRM. By Edith Tilton Penrose. New York, John Wiley & Sons, 1959. Pp. 272. \$6.00.

Reviewed by William Miller
Ridgefield, Connecticut

In this book Mrs. Penrose makes a valiant effort if not to introduce the modern businessman to the real world of war, revolution, and possible alternatives to capitalism, at least to introduce the conventional economist to the real world of business organization and management in modern capitalist society.

Perhaps one had better say that her aim is to reintroduce the economist to the real business world. In his "Foreword" to Mrs. Penrose's earlier excellent study of *The Economics of the International Patent System* (The Johns Hopkins Press, 1951), Fritz Machlup wrote: "In welcoming this book, I am also saying 'Welcome back!' to economists re-entering the discussion of patent policy." There is no Foreword to the present work. Mrs. Penrose requires no introduction even "to a wider audience than that of professional economists only," which she here avowedly seeks. Yet, once again, her work represents a hand extended to economic theorists, a welcome back to the day-to-day business world their renowned progenitors dared not altogether abandon. In this world legal institutions, entrepreneurial temperament, corporate traditions, and personal self-images are all independent variables acting significantly upon economic tendencies and the growth of firms.

Normally tolerant, Mrs. Penrose can turn waspish toward thinkers in blinkers. "Attempts to reduce all behaviour to mathematical utility functions," she writes at one point, "are surely as unenlightening as they are complicated and add little to the solution of our problems." Somewhat earlier she quotes with dismay George Stigler's absolutist dictum: "The comparative private costs of firms of various sizes can be measured in only one way: by ascertaining whether firms of the various sizes are able to survive in the industry." "Survival" in the real world, Mrs. Penrose says, may continue over a long period of time regardless of unfavorable "comparative private costs." Of course, Mrs. Penrose defines her "firm," quite differently from Mr. Stigler's; and she defines "growth" (not to say "survival") quite differently from conventional economists in general. She is willing to leave the economists their definitions "so long as [they] cultivate [their] own garden and we cultivate ours." But her implication is clear enough that hers is the more realistic and more fruitful garden; and her invitation to it is broad and friendly enough for all.

In the conventional "theory of the firm," Mrs. Penrose writes, "the 'growth' of a firm is nothing more than an increase in the output of given products, and the 'optimum size' of the firm is the lowest point on the average cost curve for its given product. . . . The model is not designed for the analysis of a 'firm' free to vary the kind of products it produces as it grows." In her own "theory of the growth of the firm," on the other hand, Mrs. Penrose stresses the "administrative continuity" of "firms," their freedom to move strategically into numerous "diversified" markets, and their power to allocate "productive resources" by "conscious planning," in defiance of "market forces" if need be. Among a firm's "produc-

tive resources," she gives signal importance to "entrepreneurial services" and "managerial services." Indeed, if her conception of "growth" may be reduced to a phrase, it would be the "process" by which such "services" develop within "the area of 'authoritative communication'" — a term borrowed from Chester Barnard. Mrs. Penrose thinks of Barnard's "area," as almost indefinitely elastic. "We have found no evidence," she writes, "that the limit to concentration lies in the inability of men to administer large units." "Concentration slackens," she says, "because it becomes more difficult for large firms as a group to take advantage of the same percentage of total opportunities as they did when they could sustain a more rapid rate of growth." It is this difficulty that allows "interstices" to appear in which small firms may gain an economic foothold and momentum for expansion.

Mrs. Penrose makes a sharp distinction between "economies of size," in which small firms obviously cannot share, and "economies of growth" — that is, the maximization of employment of "productive resources" — in the attainment of which small firms may be exceedingly efficient. She also makes a strong case for the social value of oligopolistic competition; and an even stronger one against "artificial barriers" by which oligopolies with monopolistic power shut off entry into "interstices." "If small firms are not permitted to take advantage of the leftover opportunities," writes Mrs. Penrose, "the rate of growth of the economy will suffer."

This is an abstract book which presents, as far as Mrs. Penrose knows, the first comprehensive "theory of the growth of the firm." Because the theory is comprehensive, no attempt has been made in this short review to do more than suggest certain of its categories. Mrs. Penrose herself elaborated certain of these in her article on the Hercules Powder Company in the Spring, 1960, issue of the *Business History Review*. Mrs. Penrose's research has been largely in the annual reports of business firms, in business histories, in the large recent literature of management, and in interviews with businessmen. These sources are far more familiar to economic historians than to conventional economists. But Mrs. Penrose has been at pains to woo the latter to her work. It may help to suggest that she writes in the tradition of Marshall himself, but more in the tradition of *Industry and Trade* than the *Principles of Economics*. Her work, touching forcefully as it does on issues of "bigness," "concentration," "oligopoly," and the role of "small business," obviously does merit the consideration of makers of public policy. "Just one warning," writes Mrs. Penrose in the opening sentence of her Preface, "this book deals with familiar concepts in an unfamiliar way." But business historians, unlike economists, may find the "way" here fairly familiar, the concepts themselves perhaps provocatively unfamiliar.

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In this issue

BUSINESS HISTORY REVIEW



Cleveland's Venezuelan Message

The President's determined foreign policy pronouncement focused attention upon both the lack of unanimity in business circles and a surprising capacity for independent American action in international finance. For historians, the Venezuelan Message is a challenge inviting efforts to probe the depth and longevity of cleavage between public policy sentiment in the financial and industrial-mercantile sectors of the economy.

WALTER LAFEVER

Industrial Relations Policies, 1900-1933

The first third of the twentieth century completely transformed the practice of industrial relations in American business. Three principal motivating forces may be identified. These not only fluctuated in time, place, and influence, but have received unequal and less than impartial historical attention.

NORMAN J. WOOD

British-Texan Investment Cattle Boom, 1880-1885

Like most speculative extravaganzas, the Western cattle boom was compounded out of a bona fide opportunity, exaggeration, gullibility, inadequate communications, dishonesty, and incompetence. There were some solid residual benefits, representing, in effect, an involuntary gift by British investors to their American cousins.

RICHARD GRAHAM

Development of Bookkeeping into Accounting

The transition from simple record keeping to accounting more or less in the form we know it today took many hundreds of years, though most of the basic developments had occurred by early Renaissance times. The advance of the art was intimately linked with a growing literature, the advancement of status, and other recognizable signs of maturing professionalism.

JAMES DON EDWARDS

American Accounting before 1900

Some later observers, impressed perhaps by rapid progress of the art after 1900, showed disdain for nineteenth-century methods. Five principal factors, however, produced a steady evolution and made accounting an element of importance in the nineteenth-century American business world.

ROY J. SAMPSON

Memoir of Sir George Touche, 1861-1935

The career of this influential accountant illuminates, with colorful Victorian overtones, the beginnings of the investment trust movement and the heyday of British international investment.

MARY E. MURPHY

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